

Site ID 14CTB08			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams, Nick Nidzieko		
Date	4/1/14 --- JD 091		
Arrival Time	14:39 EDT	Departure Time	14:58
Latitude	N 38.11203	Longitude	W 075.19899
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	030
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	F530		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	0.25	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	1	ITGODS (bottom of weld ≈ top of barrel) (cm)	full penetration
Forams (preserved, x2)	✓	Recovered Core Length (cm)	33 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	203 cm
Distance from GPS	145 cm	Azimuth from GPS	W 280°
Azimuth from GPS	NE 030°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Edge of pond adjacent to sandy overwash deposit with some revegetation
No YSI (no standing water)
Surface grab site only, plus collected sand auger in OW deposit
Sand auger "punched through," recovered ~ half core barrel --- sand over peat over sand

<b>Photos</b>
DSCN0986.JPG --- skiff at marsh edge
DSCN0987.JPG --- sandy overwash deposit
DSCN0988.JPG to DSCN0991.JPG --- N → E → S → SW from site

Site ID 14CTB09			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	11:09 EDT	Departure Time	11:30
Latitude	N 38.11246	Longitude	W 075.18787
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	008
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A208		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	22 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	39 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	150 cm
Distance from GPS	143 cm	Azimuth from GPS	E 100°
Azimuth from GPS	SE 135°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Overwash fan
Sand auger punched through, recovered peat at bottom of core!!!

<b>Photos</b>
DSCN0844.JPG to DSCN0848.JPG --- "panorama" N → NE → E → SE → S from site
DSCN0849.JPG to DSCN0850.JPG --- SW → NW from site

Site ID 14CTB10			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	11:42 EDT	Departure Time	12:05
Latitude	N 38.11285	Longitude	W 075.19109
Water Depth (m)	2 - 3 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	009
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A209		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	0.75	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	1	ITGODS (bottom of weld ≈ top of barrel) (cm)	24 cm
Forams (preserved, x2)	√	Recovered Core Length (cm)	16 cm
Grain Size	√	Core Catcher Used?	No
Stable Isotopes/Metals	√	Distance from GPS	105 cm
Distance from GPS	190 cm	Azimuth from GPS	SW 235°
Azimuth from GPS	NW 300°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
14CTB10 replicate sample 14CTB81
Marshy site - poor sand auger recovery

<b>Photos</b>
DSCN0851.JPG to DSCN0854.JPG --- N → E → S → W from site

Site ID		14CTB81	
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	11:42 EDT	Departure Time	12:05
Latitude	N 38.11285	Longitude	W 075.19109
Water Depth (m)	2 - 3 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	009
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A209		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	0.75	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	1	ITGODS (bottom of weld ≈ top of barrel) (cm)	33 cm
Forams (preserved, x2)	√	Recovered Core Length (cm)	14 cm
Grain Size	√	Core Catcher Used?	No
Stable Isotopes/Metals	√	Distance from GPS	91 cm
Distance from GPS	190 cm	Azimuth from GPS	NE 045°
Azimuth from GPS	NW 300°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
14CTB10 replicate sample 14CTB81
Marshy site - poor sand auger recovery

<b>Photos</b>
DSCN0851.JPG to DSCN0854.JPG --- N → E → S → W from site
DSCN0855.JPG to DSCN0858.JPG --- horseshoe crab and tracks in beach sand by truck

Site ID 14CTB11			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/30/14 --- JD 089		
Arrival Time	09:48 EDT	Departure Time	10:31 EDT
Latitude	N 38.11366	Longitude	W 075.19324
Water Depth (m)	3 - 5 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	019
YSI	Pro Plus	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A419		
Occupation Time (min)	30 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	0.75	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	1	ITGODS (bottom of weld ≈ top of barrel) (cm)	16 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	15 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	165 cm
Distance from GPS	310 cm	Azimuth from GPS	NE 040°
Azimuth from GPS	S 190°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer	0.75	Water Type (Estuary, Marsh, Standing, Marsh Backfill)	Standing/Marsh
Shear Strength (ka/cm <sup>2</sup> )	1	Temperature (°C)	11.3°
Vegetation Type	Spartina sp?	Barometric Pressure	749.2
Barrel Length (cm)	124 cm	Dissolved Oxygen (DO) (%)	37.7
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)	88 cm	DO (mg/L)	6.71
In-the-Ground Outside Depth to Surface (ITGODS) (cm)	85 cm	Specific Conductance (mS/cm)	25.34
Recovered Core Length (cm)	32 cm	Salinity	15.46
Distance from GPS	267 cm	pH (-)	7.45 / -58.2
Azimuth from GPS	SE 120°	ORP (mV)	-61.0
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Weather day yesterday - heavy rain and low visibility. Cool and cloudy with scattered showers, winds 5-10 mph out of south increasing to 15 mph out of WNW in the afternoon. Marsh sediment is very sandy and saturated --- poor sand auger and push core recovery Very difficult to get penetration with push core; no penetration with peat auger

<b>Photos</b>
DSCN0921.JPG to DSCN0924.JPG --- E → S → W → N from site DSCN0925.JPG, DSCN0926.JPG --- "Jesus bearing his cross" DSCN0927.JPG, DSCN0928.JPG --- horseshoe crabs are huge here!

Site ID 14CTB15			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	16:28 EDT	Departure Time	16:42
Latitude	N 38.15316	Longitude	W 075.17877
Water Depth (m)	1 - 2 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	015
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	E215		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	14 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	15.5 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	52 cm
Distance from GPS	140 cm	Azimuth from GPS	W 270°
Azimuth from GPS	NW 330°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
site located in back-barrier marsh near tidal inlet poor sediment recovery with sand auger

<b>Photos</b>
DSCN0892.JPG to DSCN0894.JPG --- SW → W → NW to tidal inlet from site DSCN0895.JPG to DSCN0899.JPG --- "panorama" N → NE → E → SE → S from site DSCN0900.JPG to DSCN0901.JPG --- zoom photo of dormant site vegetation (Spartina?)

Site ID 14CTB16			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	15:58 EDT	Departure Time	16:15
Latitude	N 38.15235	Longitude	W 075.17607
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	014
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	E214		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	10 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	16 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	113 cm
Distance from GPS	126 cm	Azimuth from GPS	W 280°
Azimuth from GPS	NE 040°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
marshy grass - sand auger ~ full penetration but only 16 cm sediment recovery sand auger penetrated sand below organic-rich sediment at top of core

<b>Photos</b>
DSCN0886.JPG to DSCN0889.JPG --- N → E → S → W from site DSCN0890.JPG --- zoom photo of dormant site vegetation

Site ID	14CTB17		
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	15:39 EDT	Departure Time	15:50
Latitude	N 38.15185	Longitude	W 075.17361
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	013
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b><i>DGPS Positioning</i></b>			
GPS Session ID	E213		
Occupation Time (min)	5 min		
<b><i>Surface/Grab</i></b>		<b><i>Sand Gouge Core:</i></b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	full penetration
Forams (preserved, x2)	✓	Recovered Core Length (cm)	36 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	73 cm
Distance from GPS	150 cm	Azimuth from GPS	E 090°
Azimuth from GPS	S 170°		
<b><i>Marsh Push Core</i></b>		<b><i>Water Quality Parameters</i></b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b><i>Marsh Auger Core</i></b>		<b><i>Radium Sampling</i></b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Overwash fan with some low/scrub vegetation

<b>Photos</b>
DSCN0881.JPG to DSCN0884.JPG --- N → E → S → W from site
DSCN0885.JPG --- zoom photo of dormant site vegetation



Site ID		14CTB21	
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	13:27 EDT	Departure Time	13:40
Latitude	N 38.21221	Longitude	W 075.15327
Water Depth (m)	1 - 2 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	003
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A103		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	50
Forams (preserved, x2)	✓	Recovered Core Length (cm)	10
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	135 cm
Distance from GPS	290 cm	Azimuth from GPS	E 100°
Azimuth from GPS	NE 330°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Site is located in back-barrier marsh --- poor recovery of mucky/saturated organic sediments with sand auger

<b>Photos</b>
DSCN0805.JPG --- looking ~W toward Chincoteague Bay DSCN0806.JPG to DSCN0808.JPG --- N → E → S from site

Site ID 14CTB23			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	11:37 EDT	Departure Time	12:09
Latitude	N 32.21137	Longitude	W 075.15135
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	001
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A101		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	38 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	24 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	106 cm
Distance from GPS	200 cm	Azimuth from GPS	ESE 110°
Azimuth from GPS	NNE 040°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Cold and sunny but windy, 15-20 mph out of NW gusting to 40 mph
Snow overnight, 2-3" on ground
Base station BAYR erected on NPS control site 2011ASISBAYR this morning

<b>Photos</b>
DSCN0786.JPG to DSCN0788.JPG --- Mako covered in snow at hotel parking lot
DSCN0789.JPG
DSCN0790.JPG to DSCN0794.JPG --- "panorama" N → NE → E → SE → S from site

Site ID 14CTB24			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	12:20 EDT	Departure Time	12:45
Latitude	N 38.21090	Longitude	W 075.14970
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	002
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A102		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	43 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	21 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	105 cm
Distance from GPS	300 cm	Azimuth from GPS	S 180°
Azimuth from GPS	E 090°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
14CTB24 replicate sample 14CTB83
Prominent dune field visible to east (see photos)

<b>Photos</b>
DSCN0795.JPG to DSCN0799.JPG --- "panorama" N → NE → E → SE → S from site
DSCN0800.JPG to DSCN0804.JPG --- "panorama" N → NW → W → SW → S from site

Site ID	14CTB83		
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	12:20 EDT	Departure Time	12:45
Latitude	N 38.21090	Longitude	W 075.14970
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	002
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A102		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	33 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	24.5 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	170 cm
Distance from GPS	300 cm	Azimuth from GPS	SSE 150°
Azimuth from GPS	E 090°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
14CTB24 replicate sample 14CTB83
Prominent dune field visible to east (see photos)

<b>Photos</b>
DSCN0795.JPG to DSCN0799.JPG --- "panorama" N → NE → E → SE → S from site
DSCN0800.JPG to DSCN0804.JPG --- "panorama" N → NW → W → SW → S from site

Site ID 14CTB26			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	10:46 EDT	Departure Time	11:00
Latitude	N 38.10993	Longitude	W 075.18874
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	007
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	A207		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	18 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	24 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	125 cm
Distance from GPS	145 cm	Azimuth from GPS	S 170°
Azimuth from GPS	SE 150°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Cool and sunny, light breeze 5 mph out of NNW increasing to 10 mph out of S by afternoon
Overwash fan, very firm surface - wind deflation?
"Punched through" with sand auger and hit saturated layer but poor sediment recovery
Another candidate with 14CTB93/95 for trenching (or vibracoring!)?

<b>Photos</b>
DSCN0834.JPG to DSCN0838.JPG --- "panaorama" N → NE → E → SE → S from site
DSCN0839.JPG to DSCN0843.JPG --- "panaorama" N → NW → W → SW → S from site

Site ID		14CTB27	
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	13:10 EDT	Departure Time	13:20
Latitude	N 38.12067	Longitude	W 075.18470
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	011
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	B211		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	18 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	28 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	68 cm
Distance from GPS	95 cm	Azimuth from GPS	W 265°
Azimuth from GPS	S 190°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Overwash fan
Sand auger has a few organics at the bottom of core but did not penetrate (or did not recover) peat

<b>Photos</b>
DSCN0864.JPG to DSCN0867.JPG --- N → E → S → W from site
DSCN0868.JPG, DSCN0869.JPG --- "working hard"

Site ID 14CTB28			
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/27/14 --- JD 086		
Arrival Time	12:41 EDT	Departure Time	12:55
Latitude	N 38.11799	Longitude	W 075.18617
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	010
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	B210		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	~ 20 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	28 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	113 cm
Distance from GPS	84 cm	Azimuth from GPS	SSE 160°
Azimuth from GPS	SE 125°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
"Toe" of overwash fan Sand auger recovered some organic-rich sediment at bottom of core!

<b>Photos</b>
DSCN0859.JPG, DSCN0860.JPG --- N from site DSCN0861.JPG to DSCN0863.JPG --- E → S → W from site

Site ID		14CTB93	
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	15:46 EDT	Departure Time	~ 16:00
Latitude	N 38.24451	Longitude	W 075.13503
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	004
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	B104		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	30 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	28 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	120 cm
Distance from GPS	205 cm	Azimuth from GPS	E 090°
Azimuth from GPS	NNW 340°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Overwash fan below dunes

<b>Photos</b>
DSCN0809.JPG to DSCN0811.JPG --- SE → E → NE from truck parked ~ in line with transect 1 at ocean-facing sandy shoreline
DSCN0812.JPG to DSCN0815.JPG --- W → N → E → S from site



Site ID		14CTB94	
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	16:37 EDT	Departure Time	16:50
Latitude	N 38.24527	Longitude	W 075.13655
Water Depth (m)	2 - 3 cm		
Handheld GPS used	GPSmap 76S	GPS Waypoint	006
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	B106		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	0.75	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	0	ITGODS (bottom of weld ≈ top of barrel) (cm)	17 cm
Forams (preserved, x2)	✓	Recovered Core Length (cm)	16 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	46 cm
Distance from GPS	210 cm	Azimuth from GPS	SW 210°
Azimuth from GPS	E 090°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Site is located in back-barrier marsh - poor sand auger recovery
Shear vane "failed" (0) - sediment too saturated to get a reading?

<b>Photos</b>
DSCN0820.JPG to DSCN0823.JPG --- N → E → S → W from site
DSCN0824.JPG to DSCN0826.JPG, DSCN0833.JPG - dolphin skeleton buried in sand and snow --- way cool!!!
DSCN00826.JPG to DSCN00832.JPG - high surf beyond truck

Site ID	14CTB95		
Field Crew	Julie Bernier, Alisha Ellis, Scott Adams		
Date	3/26/14 --- JD 085		
Arrival Time	16:07 EDT	Departure Time	16:25
Latitude	N 38.24601	Longitude	W 075.13490
Water Depth (m)	---		
Handheld GPS used	GPSmap 76S	GPS Waypoint	005
YSI	---	Camera	AW100

Sample Type/Sample	X, Measure, Time	Sample Type/Sample	X, Measure, Time
<b>DGPS Positioning</b>			
GPS Session ID	B105		
Occupation Time (min)	5 min		
<b>Surface/Grab</b>		<b>Sand Gouge Core:</b>	
Pentrometer (marsh sites only)	---	Barrel Length (cm)	65 cm
Shear Strength (marsh sites only)	---	ITGODS (bottom of weld ≈ top of barrel) (cm)	full penetration
Forams (preserved, x2)	✓	Recovered Core Length (cm)	25 cm
Grain Size	✓	Core Catcher Used?	No
Stable Isotopes/Metals	✓	Distance from GPS	220 cm
Distance from GPS	95 cm	Azimuth from GPS	SE 155°
Azimuth from GPS	E 100°		
<b>Marsh Push Core</b>		<b>Water Quality Parameters</b>	
Pentrometer		Water Type (Estuary, Marsh, Standing, Marsh Backfill)	
Shear Strength (ka/cm <sup>2</sup> )		Temperature (°C)	
Vegetation Type		Barometric Pressure	
Barrel Length (cm)		Dissolved Oxygen (DO) (%)	
In-the-Ground Inside Depth to Surface (ITGIDS) (cm)		DO (mg/L)	
In-the-Ground Outside Depth to Surface (ITGODS) (cm)		Specific Conductance (mS/cm)	
Recovered Core Length (cm)		Salinity	
Distance from GPS		pH (-)	
Azimuth from GPS		ORP (mV)	
<b>Marsh Auger Core</b>		<b>Radium Sampling</b>	
Number of Sections		Start Time	
Total Core Length (cm)		Stop Time	
Distance from GPS		Total Volume	
Azimuth from GPS		Approximate Flow Rate	

<b>Notes</b>
Full penetration but "pushed in" very fast - punched through/displaced sediment?
Tried second core with core catcher but no recovery

<b>Photos</b>
DSCN0816.JPG to DSCN0819.JPG --- N → E → S → W from site