

Monthly Report: July 2015

Faculty of
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10 August 2015

By:

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Bill and Mary:

Please see the bulleted list below for the major actions and accomplishments associated with Cooperative Agreement Number W912HZ-14-2-0002 for the month of July 2015. Please let me know if you would like me to elaborate on the details of any items I've listed below, or if there are any status updates you'd like on unlisted topics.

Best Regards,

Jamie

Marsh Vegetation

- June synoptic marsh vegetation samples finished drying and were weighed in July.
- Importance values have been calculated and community analysis will be underway soon.

Water Data

- Data were last downloaded on 20-21 July 2015.
- A summary of salinity parameters by area is provided in Table 1.
- The aboveground water sensor at Middle 4 failed on 22 June 2015. Therefore, we lost data from that date on.
 - This sensor will be replaced in August.

Forest monitoring

- Monthly measurements of baldcypress tree growth were last taken on 20 July 2015.
- Average expansion (circumference) from 23 June – 20 July:
 - Swamp 1: 0.88 cm
 - Swamp 2: 0.85 cm
 - Swamp 3: 0.30 cm

Table 1. Average, maximum, and minimum salinity (practical salinity units = psu) measured at (12) marsh monitoring areas and (3) tidal forest areas. Summaries are based on hourly measurements starting 01 January 2015 0:00 for most sensors; Swamp 3 belowground data begins 13 January 2015, and Middle 4 aboveground ends 22 June due to sensor failures. Salinity values of 0.00 were not used to compute averages because they indicate a dry monitoring well. Averages herein reflect measurements up to 20-21 July, depending on the sensor, except Swamp 3 and Middle 4.

Area	Month	Aboveground Salinity (psu)			Belowground Salinity (psu)		
		Avg. (std. err)	Max	Min	Avg (std. err)	Max	Min
Back 1	January	0.11 (0.01)	0.17	0.03	0.17 (0.00)	0.20	0.12
	February	0.13 (0.01)	0.17	0.02	0.17 (0.00)	0.19	0.15
	March	0.06 (0.00)	0.10	0.00	0.15 (0.00)	0.16	0.13
	April	0.02 (0.00)	0.19	0.00	0.13 (0.00)	0.16	0.08
	May	0.02 (0.00)	0.14	0.00	0.12 (0.00)	0.15	0.10
	June	0.01 (0.00)	0.19	0.00	0.13 (0.00)	0.16	0.12
	July	0.06 (0.02)	0.09	0.04	0.13 (0.00)	0.14	0.11
	Annual	0.03 (0.00)	0.19	0.00	0.14 (0.00)	0.20	0.08
Back 2	January	0.09 (0.01)	0.23	0.00	0.24 (0.00)	0.37	0.15
	February	0.15 (0.01)	0.41	0.00	0.23 (0.00)	0.30	0.14
	March	0.10 (0.01)	0.27	0.00	0.19 (0.00)	0.23	0.12
	April	0.18 (0.02)	0.42	0.00	0.21 (0.00)	0.29	0.12
	May	0.14 (0.01)	0.43	0.00	0.19 (0.00)	0.25	0.17
	June	0.17 (0.02)	0.55	0.00	0.25 (0.00)	0.75	0.18
	July	0.14 (0.02)	0.94	0.00	0.33 (0.00)	0.86	0.24
	Annual	0.14 (0.01)	0.94	0.00	0.23 (0.00)	0.86	0.12
Back 3	January	0.13 (0.02)	0.90	0.00	0.76 (0.01)	1.19	0.29
	February	0.17 (0.03)	1.23	0.00	0.77 (0.01)	1.01	0.33
	March	0.17 (0.02)	0.56	0.00	0.77 (0.01)	1.02	0.29
	April	0.12 (0.02)	1.47	0.00	0.47 (0.01)	0.95	0.21
	May	0.07 (0.01)	1.29	0.00	0.46 (0.01)	1.15	0.16
	June	0.10 (0.02)	1.48	0.00	0.64 (0.01)	1.84	0.19
	July	0.08 (0.02)	1.64	0.00	0.92 (0.01)	1.29	0.54
	Annual	0.10 (0.01)	1.64	0.00	0.67 (0.00)	1.84	0.16
Back 3.5	January	0.17 (0.02)	1.36	0.00	2.09 (0.00)	2.33	1.85
	February	0.27 (0.03)	2.17	0.00	2.10 (0.00)	2.25	1.92
	March	0.19 (0.02)	1.28	0.00	2.06 (0.00)	2.34	1.75
	April	0.27 (0.03)	2.22	0.00	1.99 (0.01)	2.26	1.52
	May	0.18 (0.02)	1.64	0.00	1.83 (0.01)	2.29	1.09
	June	0.17 (0.02)	2.00	0.00	1.58 (0.01)	2.59	0.90
	July	0.19 (0.02)	2.13	0.00	2.08 (0.01)	2.74	1.46
	Annual	0.20 (0.01)	2.22	0.00	1.96 (0.00)	2.74	0.90

Table 1, continued.

Area	Month	Aboveground Salinity (psu)			Belowground Salinity (psu)		
		Avg. (std. err)	Max	Min	Avg (std. err)	Max	Min
Back 4	January	0.47 (0.05)	5.01	0.00	3.13 (0.01)	3.63	2.75
	February	0.58 (0.07)	5.77	0.00	2.95 (0.01)	3.30	0.03
	March	0.43 (0.05)	3.27	0.00	2.98 (0.01)	3.23	2.13
	April	0.38 (0.05)	4.29	0.00	2.80 (0.01)	3.23	0.02
	May	0.42 (0.04)	4.15	0.00	2.64 (0.01)	2.92	1.96
	June	0.42 (0.05)	5.84	0.00	3.14 (0.01)	3.77	2.78
	July	0.52 (0.07)	6.61	0.00	3.56 (0.01)	4.07	3.07
	Annual	0.46 (0.02)	6.61	0.00	3.00 (0.01)	4.07	0.02
Front 1	January	0.06 (0.01)	0.17	0.00	0.34 (0.00)	0.42	0.24
	February	0.11 (0.01)	0.33	0.00	0.30 (0.00)	0.36	0.18
	March	0.06 (0.00)	0.15	0.00	0.24 (0.00)	0.33	0.12
	April	0.08 (0.01)	0.48	0.00	0.20 (0.00)	0.28	0.12
	May	0.11 (0.01)	0.52	0.00	0.17 (0.00)	0.29	0.12
	June	0.07 (0.01)	0.56	0.00	0.22 (0.00)	0.38	0.13
	July	0.03 (0.01)	0.59	0.00	0.26 (0.00)	0.36	0.18
	Annual	0.07 (0.00)	0.59	0.00	0.25 (0.00)	0.42	0.12
Front 2	January	0.21 (0.03)	2.55	0.00	0.80 (0.00)	1.07	0.59
	February	0.38 (0.06)	4.75	0.00	0.83 (0.01)	1.28	0.58
	March	0.09 (0.02)	1.33	0.00	0.56 (0.00)	0.87	0.37
	April	0.20 (0.03)	4.06	0.00	0.65 (0.01)	0.94	0.32
	May	0.15 (0.02)	4.90	0.00	0.50 (0.00)	0.81	0.34
	June	0.20 (0.03)	4.83	0.00	0.95 (0.03)	4.11	0.01
	July	0.31 (0.04)	3.84	0.00	1.29 (0.03)	2.77	0.64
	Annual	0.21 (0.01)	4.90	0.00	0.77 (0.01)	4.11	0.01
Middle 1	January	0.11 (0.01)	0.50	0.00	0.51 (0.00)	0.60	0.36
	February	0.15 (0.02)	0.93	0.00	0.50 (0.00)	0.65	0.22
	March	0.15 (0.02)	0.72	0.00	0.40 (0.00)	0.57	0.24
	April	0.11 (0.02)	0.83	0.00	0.39 (0.00)	0.46	0.34
	May	0.06 (0.01)	1.22	0.00	0.34 (0.00)	0.41	0.24
	June	0.07 (0.01)	1.44	0.00	0.31 (0.00)	0.48	0.19
	July	0.08 (0.03)	2.15	0.00	0.49 (0.01)	0.78	0.33
	Annual	0.09 (0.01)	2.15	0.00	0.42 (0.00)	0.78	0.19

Table 1, continued.

Area	Month	Aboveground Salinity (psu)			Belowground Salinity (psu)		
		Avg. (std. err)	Max	Min	Avg (std. err)	Max	Min
Middle 2	January	0.28 (0.05)	1.95	0.00	0.60 (0.01)	1.25	0.37
	February	0.30 (0.08)	3.19	0.00	1.00 (0.02)	2.08	0.46
	March	0.24 (0.03)	0.96	0.00	0.71 (0.01)	1.08	0.31
	April	0.09 (0.02)	1.53	0.00	0.45 (0.00)	0.82	0.26
	May	0.08 (0.01)	1.37	0.00	0.35 (0.00)	0.57	0.21
	June	0.06 (0.01)	1.78	0.00	0.56 (0.01)	1.40	0.23
	July	0.06 (0.03)	2.62	0.00	0.82 (0.02)	2.10	0.25
	Annual	0.11 (0.01)	3.19	0.00	0.63 (0.01)	2.10	0.21
Middle 3	January	0.17 (0.05)	2.05	0.00	1.44 (0.01)	2.15	0.93
	February	0.23 (0.11)	2.34	0.00	1.76 (0.02)	3.40	1.23
	March	0.11 (0.02)	1.13	0.00	1.05 (0.02)	1.64	0.30
	April	0.06 (0.02)	1.64	0.00	0.84 (0.01)	1.50	0.53
	May	0.00 (0.00)	0.00	0.00	0.53 (0.01)	1.10	0.14
	June	0.00 (0.00)	0.00	0.00	0.73 (0.01)	1.73	0.44
	July	0.00 (0.00)	0.00	0.00	1.17 (0.01)	1.84	0.64
	Annual	0.05 (0.01)	2.34	0.00	1.06 (0.01)	3.40	0.14
Middle 4	January	0.28 (0.05)	3.59	0.00	2.84 (0.01)	3.47	2.22
	February	0.26 (0.06)	5.55	0.00	2.73 (0.01)	3.22	2.20
	March	0.11 (0.02)	1.30	0.00	2.74 (0.01)	3.35	2.16
	April	0.11 (0.02)	2.42	0.00	2.52 (0.01)	3.26	1.52
	May	0.10 (0.01)	2.49	0.00	2.22 (0.02)	5.66	1.48
	June	0.22 (0.04)	3.62	0.00	2.15 (0.04)	6.86	0.77
	July	No data	No data	No data	3.48 (0.02)	5.23	2.72
	Annual	0.17 (0.01)	5.55	0.00	2.63 (0.01)	6.86	0.77
Middle 5	January	0.21 (0.02)	1.93	0.00	1.12 (0.01)	1.79	0.58
	February	0.29 (0.03)	2.36	0.00	1.15 (0.01)	1.80	0.48
	March	0.13 (0.01)	1.18	0.00	0.63 (0.01)	1.01	0.36
	April	0.18 (0.02)	3.28	0.00	0.83 (0.01)	1.19	0.51
	May	0.14 (0.01)	4.00	0.00	0.82 (0.02)	4.46	0.55
	June	0.18 (0.03)	4.84	0.00	1.04 (0.03)	5.51	0.51
	July	0.25 (0.03)	4.03	0.00	1.72 (0.02)	3.11	1.08
	Annual	0.19 (0.01)	4.84	0.00	1.01 (0.01)	5.51	0.36

Table 1, continued.

Area	Month	Aboveground Salinity (psu)			Belowground Salinity (psu)		
		Avg. (std. err)	Max	Min	Avg (std. err)	Max	Min
Swamp 1	January	0.04 (0.00)	0.06	0.01	0.07 (0.00)	0.08	0.06
	February	0.04 (0.00)	0.05	0.01	0.06 (0.00)	0.07	0.05
	March	0.04 (0.00)	0.05	0.00	0.07 (0.00)	0.07	0.05
	April	0.04 (0.00)	0.05	0.03	0.07 (0.00)	0.10	0.05
	May	0.04 (0.00)	0.05	0.00	0.07 (0.00)	0.08	0.01
	June	0.04 (0.00)	0.05	0.00	0.07 (0.00)	0.08	0.00
	July	0.03 (0.00)	0.05	0.00	0.06 (0.00)	0.09	0.05
	Annual	0.04 (0.00)	0.06	0.00	0.06 (0.00)	0.10	0.00
Swamp 2	January	0.06 (0.00)	0.13	0.00	0.17 (0.00)	0.18	0.15
	February	0.06 (0.00)	0.10	0.00	0.14 (0.00)	0.16	0.09
	March	0.05 (0.00)	0.09	0.01	0.12 (0.00)	0.15	0.09
	April	0.06 (0.00)	0.10	0.00	0.13 (0.00)	0.16	0.06
	May	0.07 (0.00)	0.10	0.03	0.16 (0.00)	0.21	0.07
	June	0.07 (0.00)	0.11	0.00	0.15 (0.00)	0.16	0.09
	July	0.09 (0.01)	0.13	0.01	0.15 (0.00)	0.17	0.10
	Annual	0.06 (0.00)	0.13	0.00	0.15 (0.00)	0.21	0.06
Swamp 3	January	0.03 (0.00)	0.20	0.00	0.14 (0.00)	0.29	0.07
	February	0.05 (0.00)	0.58	0.00	0.30 (0.01)	1.11	0.00
	March	0.02 (0.00)	0.15	0.00	0.18 (0.00)	0.22	0.14
	April	0.04 (0.00)	0.66	0.00	0.17 (0.00)	0.19	0.13
	May	0.02 (0.00)	0.53	0.00	0.17 (0.00)	0.30	0.06
	June	0.03 (0.00)	0.66	0.00	0.20 (0.00)	0.66	0.03
	July	0.07 (0.01)	1.64	0.00	0.32 (0.01)	0.78	0.17
	Annual	0.03 (0.00)	1.64	0.00	0.21 (0.00)	1.11	0.00