Coastal Hammock Vegetation in the Thousand Islands Brevard County, Florida

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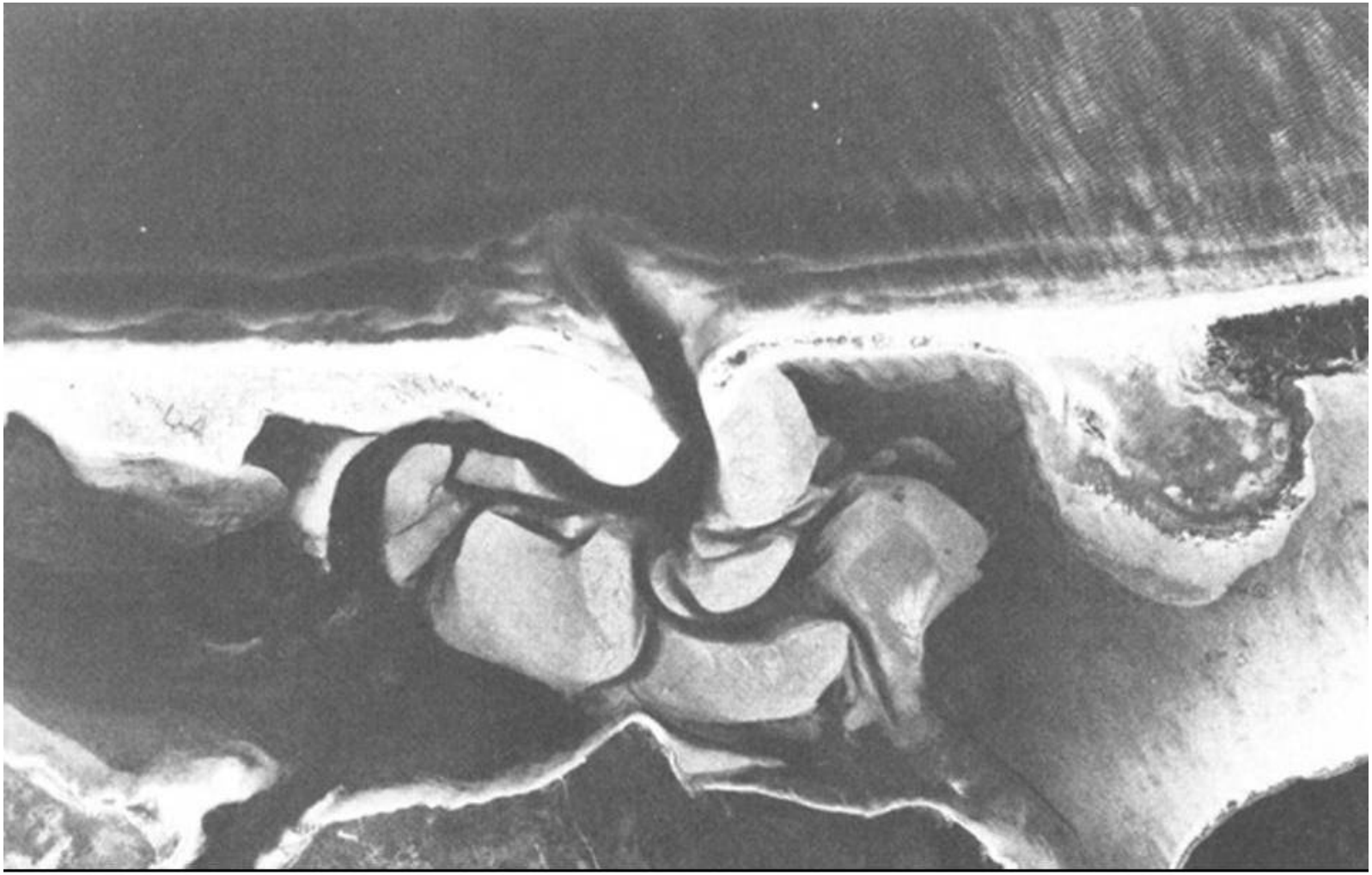


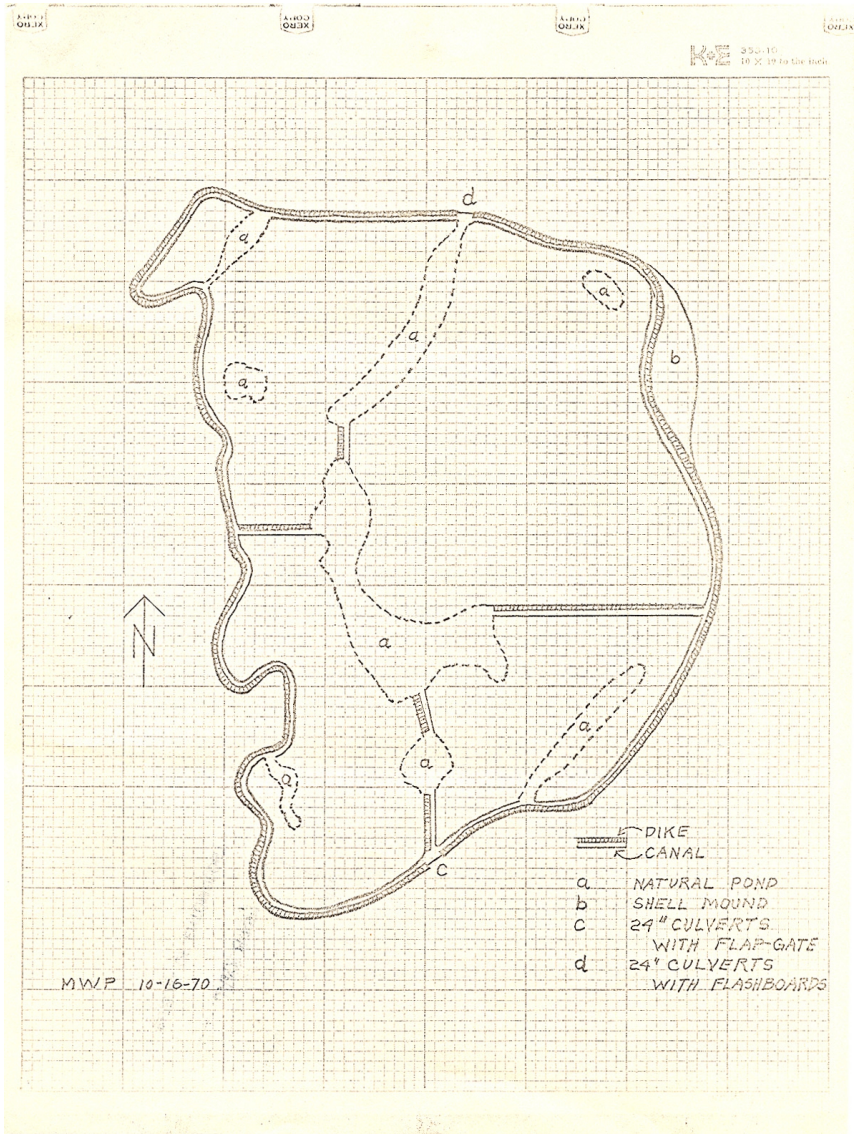
From *Barrier Islands* S. P. Leatherman, *Ed.* Pg. 73

From *Barrier Islands* S. P. Leatherman, *Ed.* Pg. 216


4/18/56


N
1951
Meters
0
250
500
1,000


N
2009
Meters
0
250
500
1,000



Provost, M. W. 1971. *Water management plan for an island in Sections 16 and 21 of T-25-S, R-37-E to be impounded for mosquito control.* Unpublished report, Fl. Medical Ent. Lab.

I. DESCRIPTION OF AREA

The marsh under present consideration is a 102-acre Avicennia-Salicornia island west of Cocoa Beach in Banana River. There is little if any Rhizophora, but there are a few Laguncularia trees and surprisingly little Batis or Distichlis. Small ponds on the island total about 12 acres. Around these and around the perimeter of the island the black mangroves are large with tall pneumatophores. The interior of the island is mostly solid Salicornia with a good scattering of scrub-type black mangroves with shorter air roots. On the upper east side of the island is an elevated area, much of it shell-mound, supporting a few cedars (Juniperus silicicola) and a variety of subtropical hammock plants, e.g. Eugenia, Randia, Capparis, Bumelia, Amyris, Torrubia, Foresteria, and Bursera. One of the latter (Gumbo Limbo) is a fine specimen over a foot in diameter.

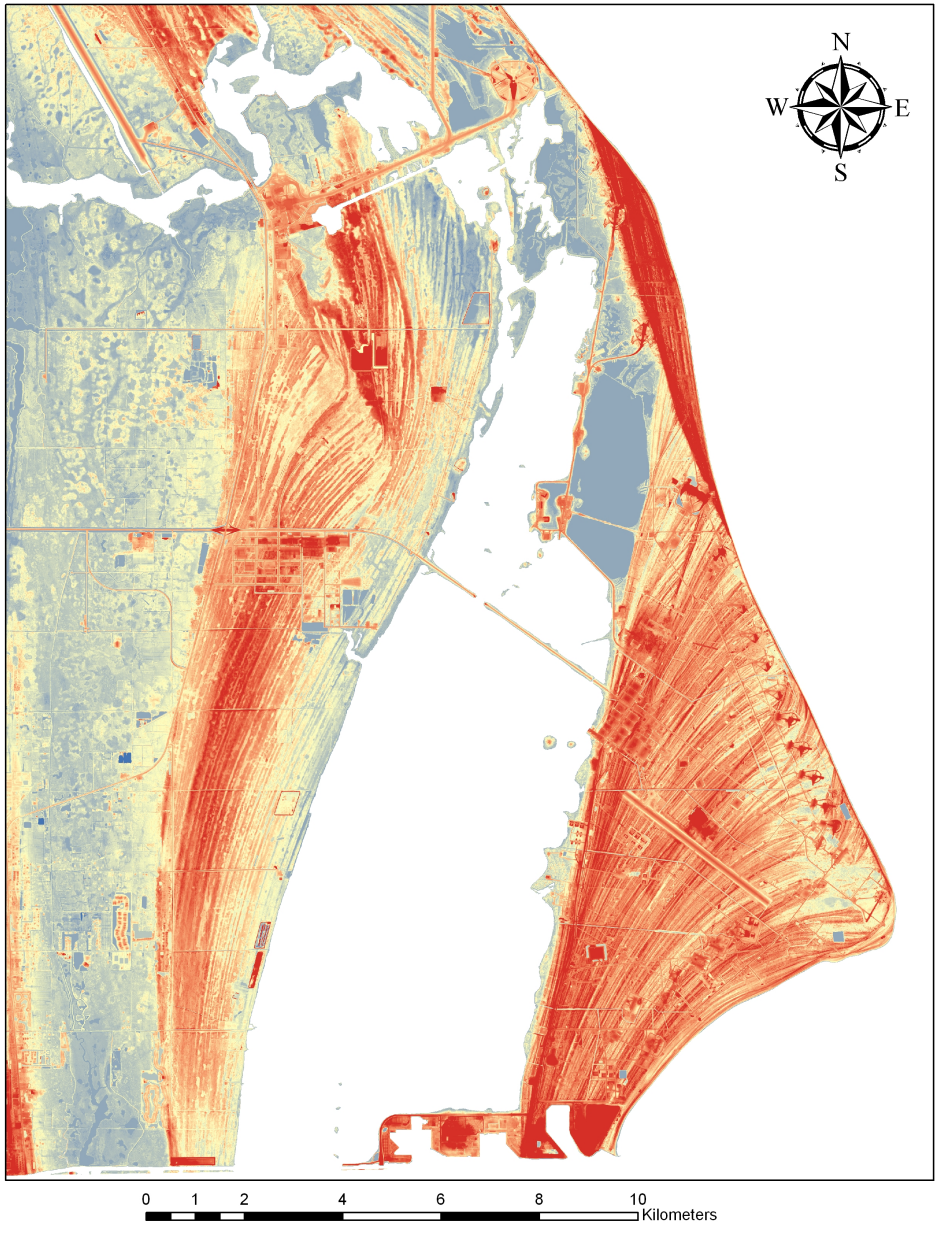
Provost, M. W. 1971. *Water management plan for an island in Sections 16 and 21 of T-25-S, R-37-E to be impounded for mosquito control.* Unpublished report, Fl. Medical Ent. Lab.

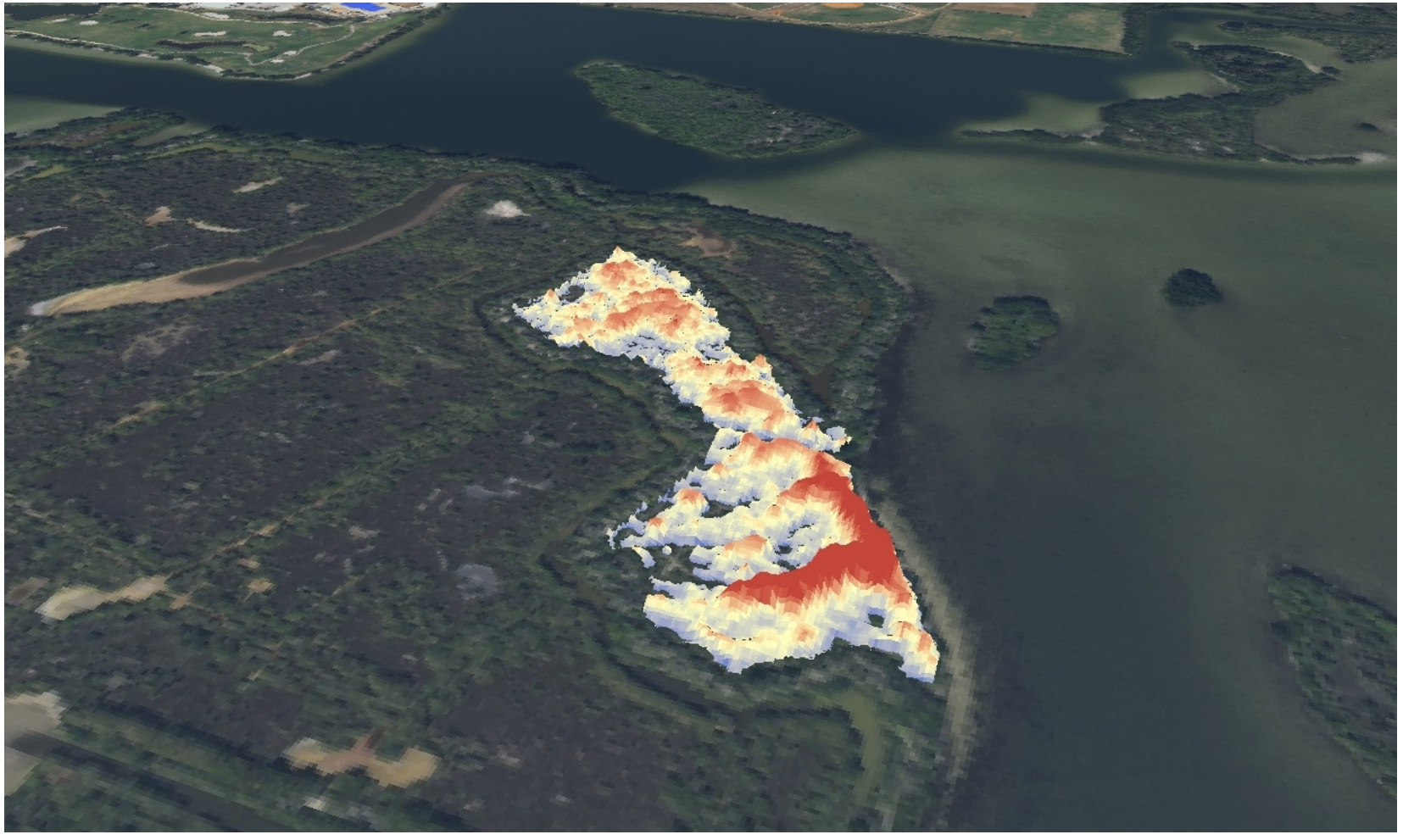
Photo: NASA, courtesy BCMC.

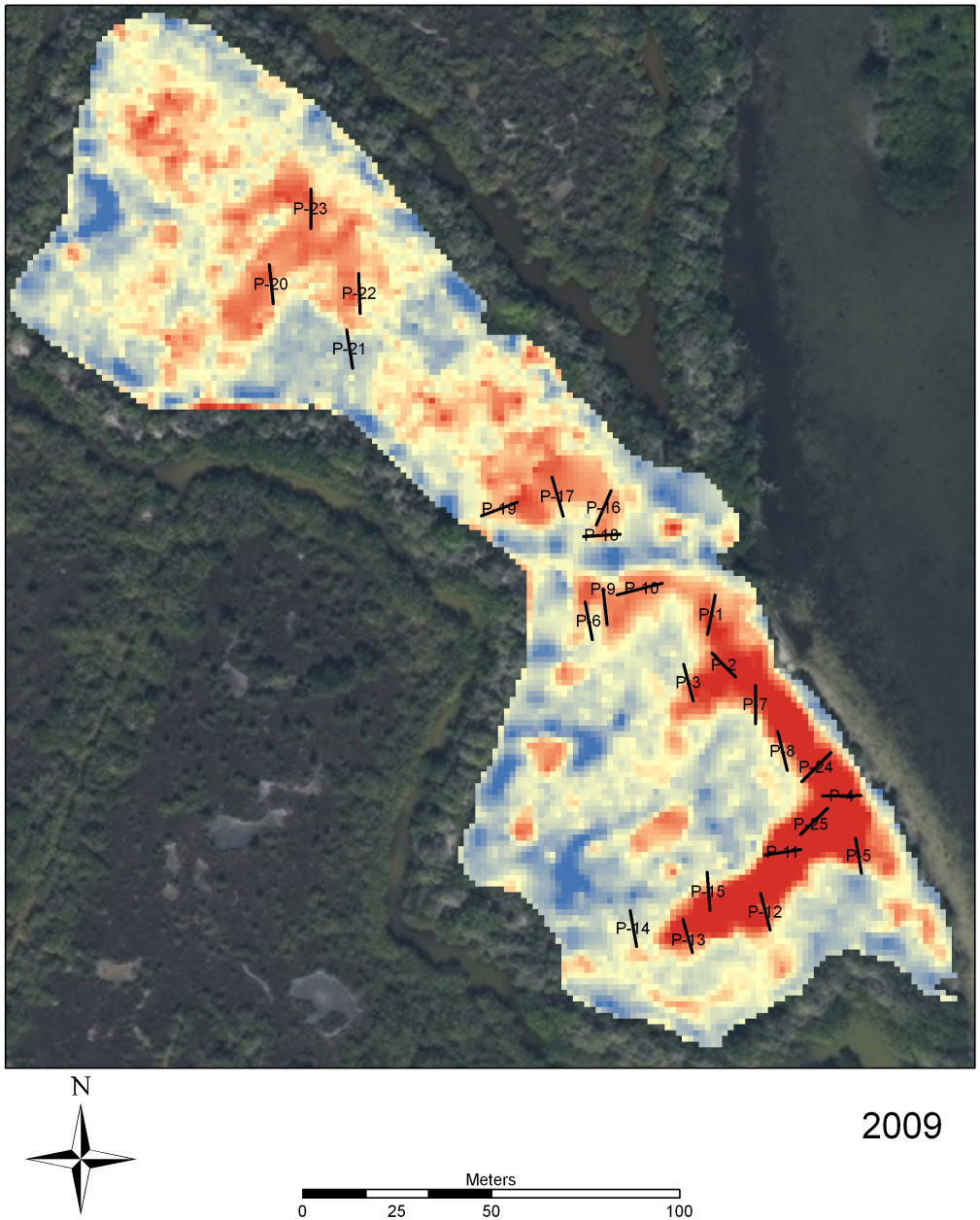
Photo: NASA, courtesy BCMC.

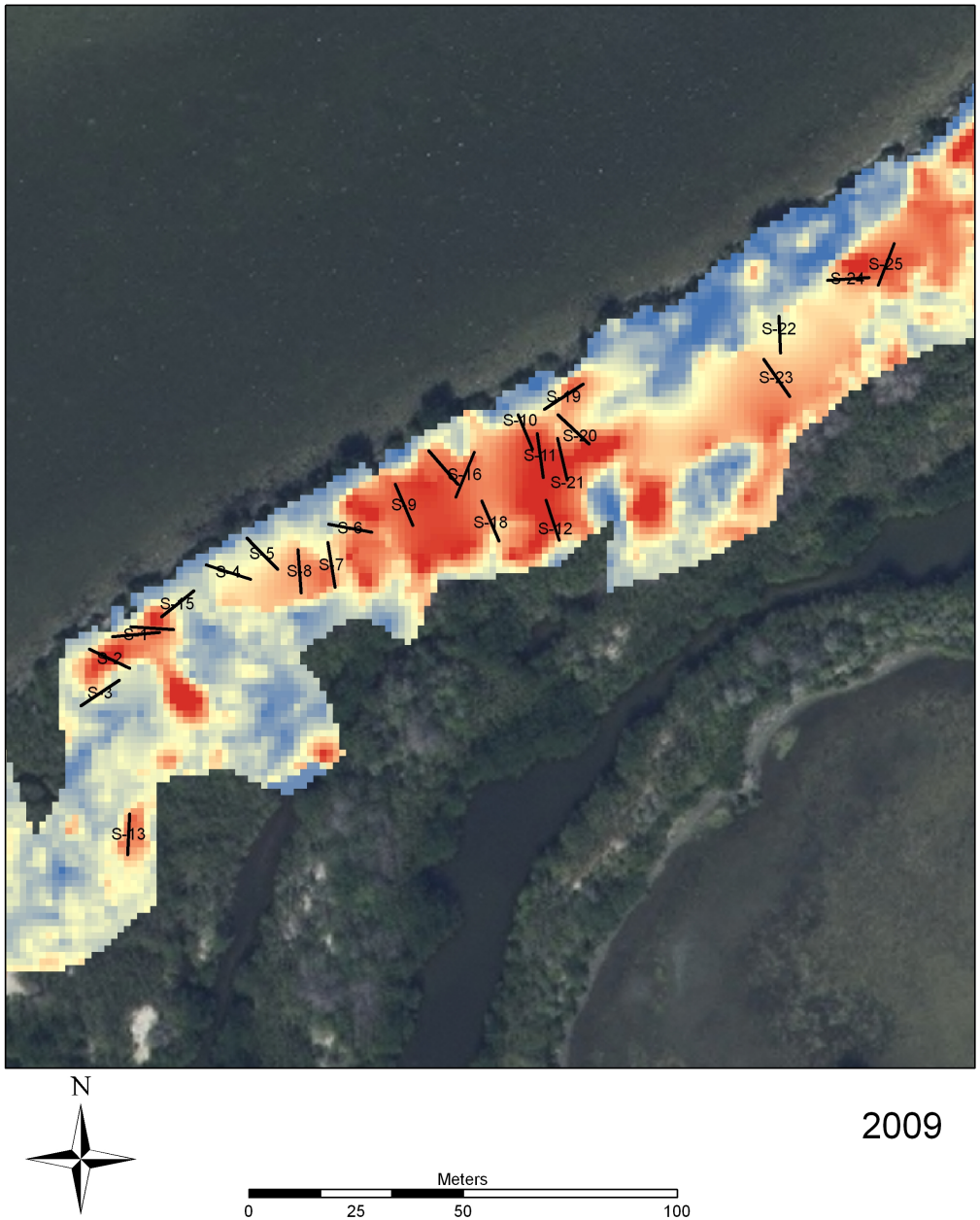
Photo: B. Lockwood


N
2009
Meters
0
125
250
500


N
W
E
S
0 1 2 4 6 8 10
Kilometers




P-23
P-20
P-22
P-21
P-19
P-17
P-16
P-18
P-9
P-10
P-6
P-1
P-2
P-3
P-7
P-8
P-24
P-4
P-25
P-11
P-5
P-15
P-12
P-14
P-13
N
2009
Meters
0
25
50
100


S-25
S-24
S-22
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S-10
S-20
S-11
S-16
S-21
S-9
S-18
S-12
S-6
S-5
S-8
S-7
S-4
S-15
S-1
S-2
S-3
S-13
N
2009
Meters
0
25
50
100

Table 1. Percent cover (%C) of tropical hammock species by location with standard error (SE).

Species	% C (Prov.)	SE	% C (Sal.)	SE
Randia aculeata	31.27	5.12	24.36	4.22
Eugenia foetida	21.45	4.81	50.18	4.33
Eugenia axillaris	16.36	3.36	24.00	4.19
Myrcianthes fragrans	7.27	3.40	11.64	5.05
Capparis flexuosa	6.18	1.65	10.18	2.84
Chiococca alba	2.91	1.14	4.00	1.40
Amyris elemifera	2.55	1.34[a]	11.64	2.75
Erythrina herbacea	1.45	0.86[a]	3.27	1.38
Capparis jamaicense	0.36	0.36[a]	2.55	0.98
Coccoloba diversifolia	0.00	N/A	9.09	4.07
Krugiodendron ferreum	0.00	N/A	6.91	2.18
Guapira discolor	0.00	N/A	5.09	2.63[a]
Sideroxylon celastrinum	0.00	N/A	2.91	1.46[a]
Bursera simaruba	0.00	N/A	1.82	1.29[a]
Zanthoxylum fagara	0.00	N/A	1.09	1.09[a]
Ardisia escallonioides	0.00	N/A	0.36	0.36[a]
Bare	7.64	2.08	1.82	0.91

[a] Indicates 95% confidence interval contains zero.

Table 2. Percent cover (%C) of associated tropical hammock species by location with standard error (SE).

Species	% C (Prov.)	SE	% C (Sal.)	SE
Forestiera segregata	4.36	1.50	4.36	1.58
Juniperus virginiana	3.64	1.96[a]	0.00	N/A
Serenoa repens	0.00	N/A	4.73	2.47[a]
Quercus virginiana	0.00	N/A	1.82	1.82[a]
Opuntia stricta	0.00	N/A	0.36	0.36[a]
Tillandsia recurvata	4.00	1.49	2.91	1.26
Tillandsia usneoides	1.82	0.74	2.55	0.98
Tillandsia utriculata	0.00	N/A	1.09	1.09[a]

[a] Indicates 95% confidence interval contains zero.

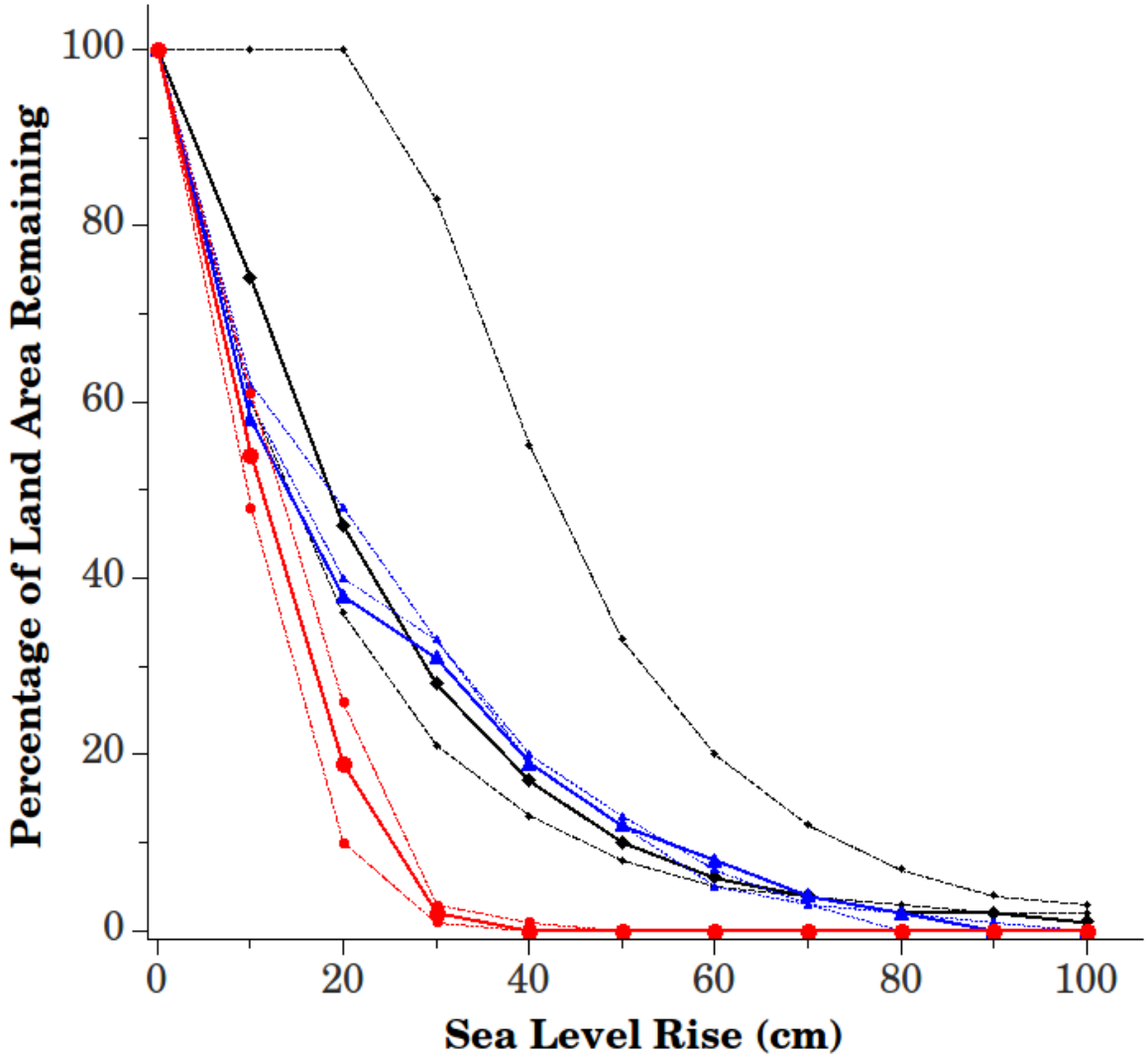
Table 3. Jaccard similarity coefficients for Thousand Islands, Maritime Hammock Sanctuary, and Turtle Mound.

Baseline Location[a]	Maritime Hammock Sanctuary[b]	Turtle Mound[c]
Thousand Islands	0.69	0.31

[a] Calculation: $J(TI, MHS) = \frac{|TI \bigcap MHS|}{|TI \bigcup MHS|}$

[b] Located in south Brevard County, approx. 70 km north of TI.

[c] Located in Volusia County, approx. 40 km south of TI.


Percentage of Land Area Remaining
100
80
60
40
20
0
0
20
40
60
80
100
Sea Level Rise (cm)