Monitoring and Managing Recreational Impact on Maine's Public Islands

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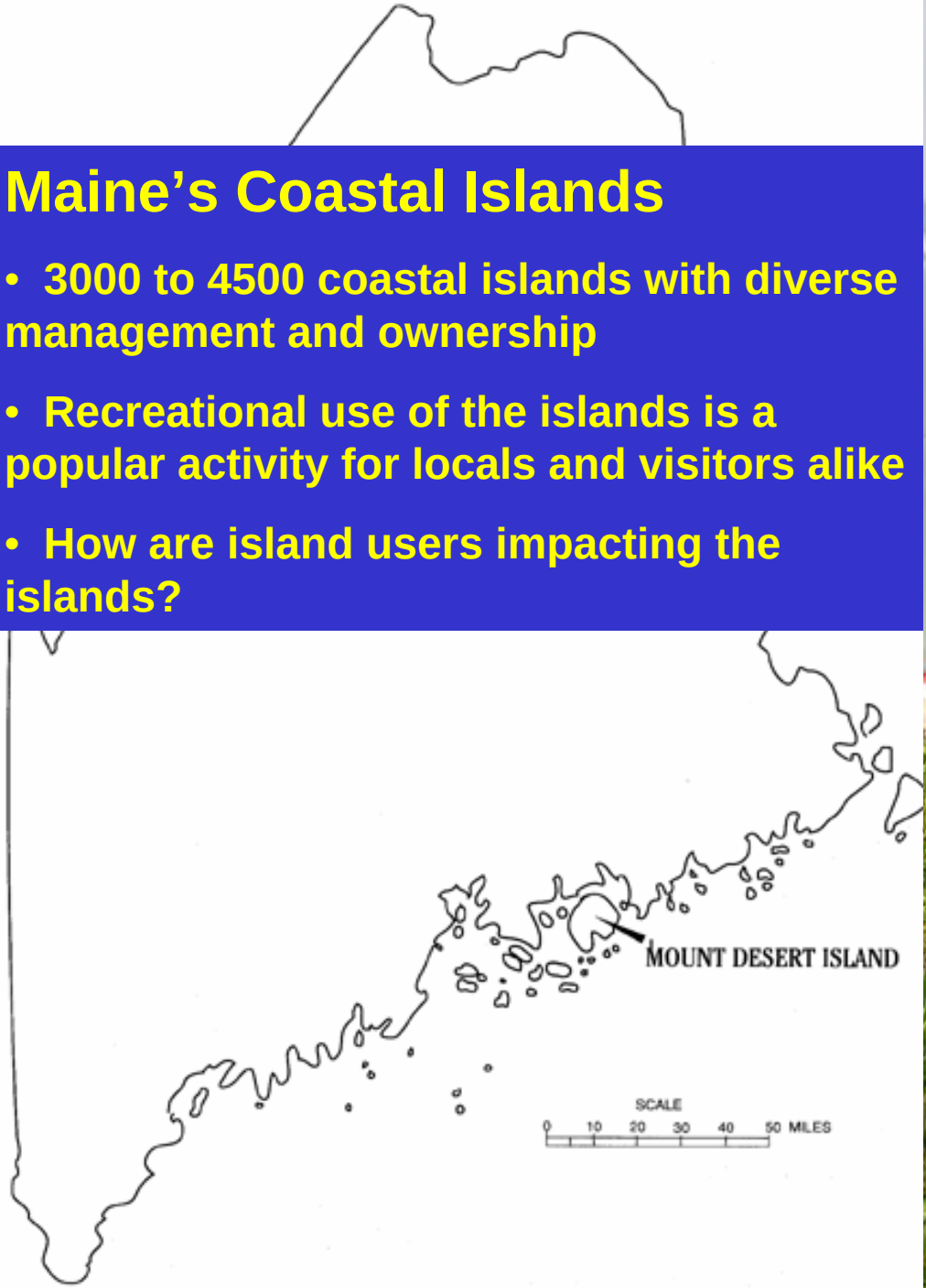
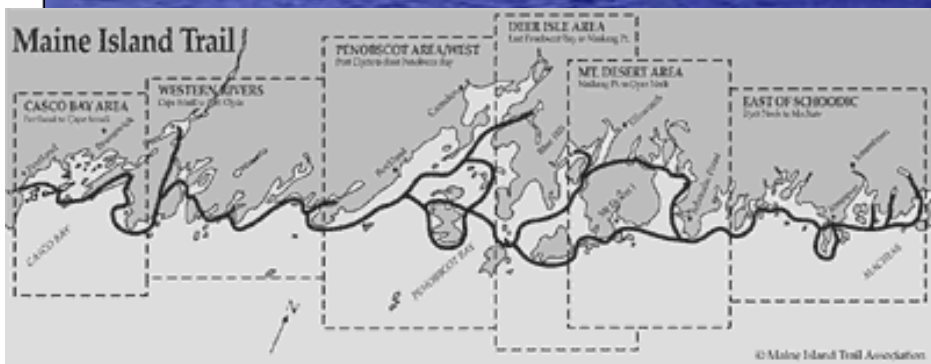
Maine's Coastal Islands

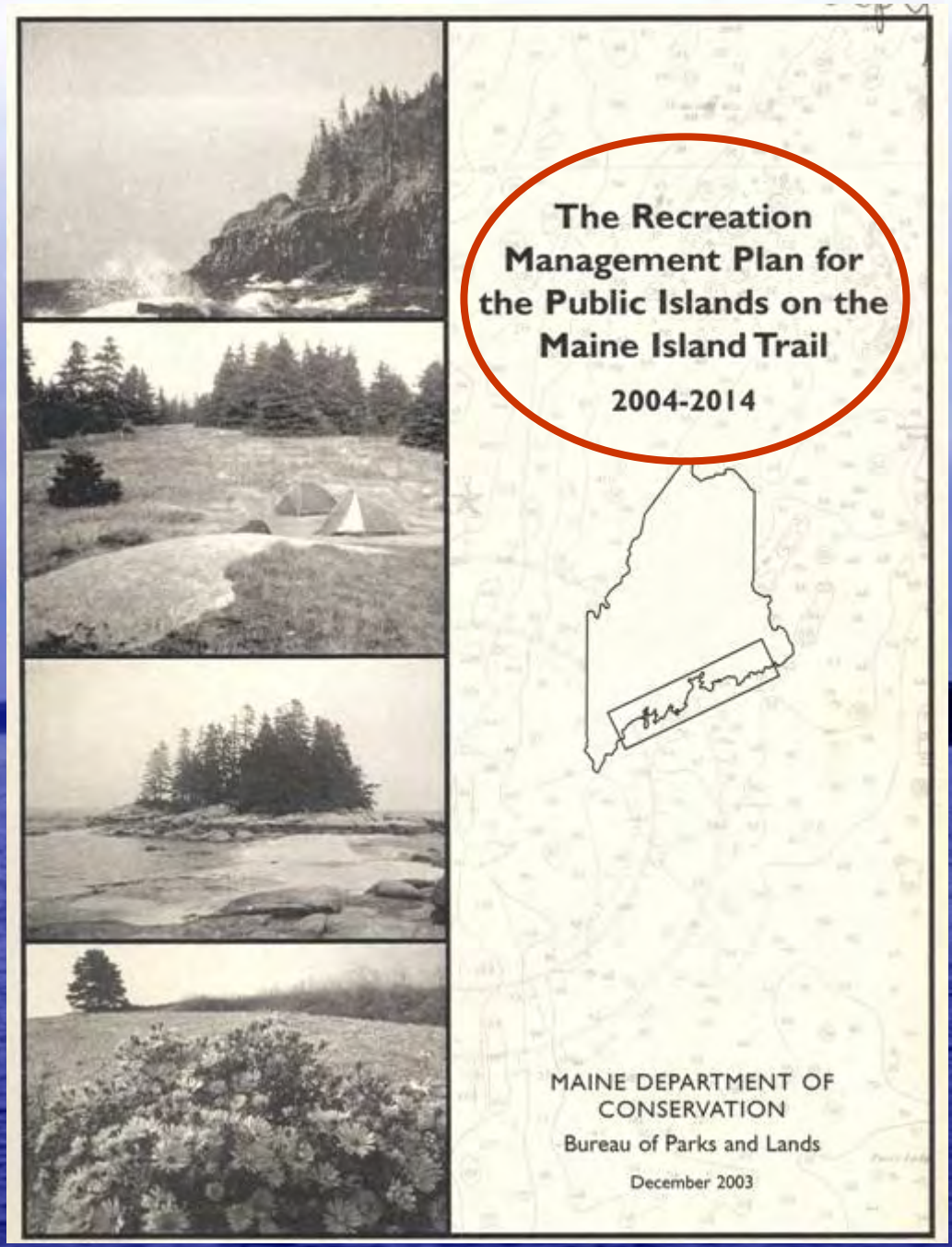
- 3000 to 4500 coastal islands with diverse management and ownership
- Recreational use of the islands is a popular activity for locals and visitors alike
- How are island users impacting the islands?



Maine Island Trail Association

MITA's goal is to establish a model of thoughtful use and volunteer stewardship for the Maine islands that will assure their conservation in a natural state while providing an exceptional recreational asset that is maintained and cared for by the people who use it.





Environmental and Social Monitoring (p. 35)

Program Priorities:

Set up a Monitoring Task Force to develop a long term monitoring plan for the public islands.

- Identify the social and environmental indicators for visitor experience and use area conditions;
- define standards for the level of acceptable change;
- determine field research methods to monitor conditions and experiences against established standards;
- enhance existing monitoring programs and data collection techniques to align with new monitoring goals.

The Island Monitoring Task Force

Goal: **To develop recreational use management information and techniques that island owners, managers and volunteers can use to achieve resource and recreation management objectives.**

Maine Coast Heritage Trust

1865 THE UNIVERSITY OF MAINE

SHORE STEWARDS PARTNERSHIP

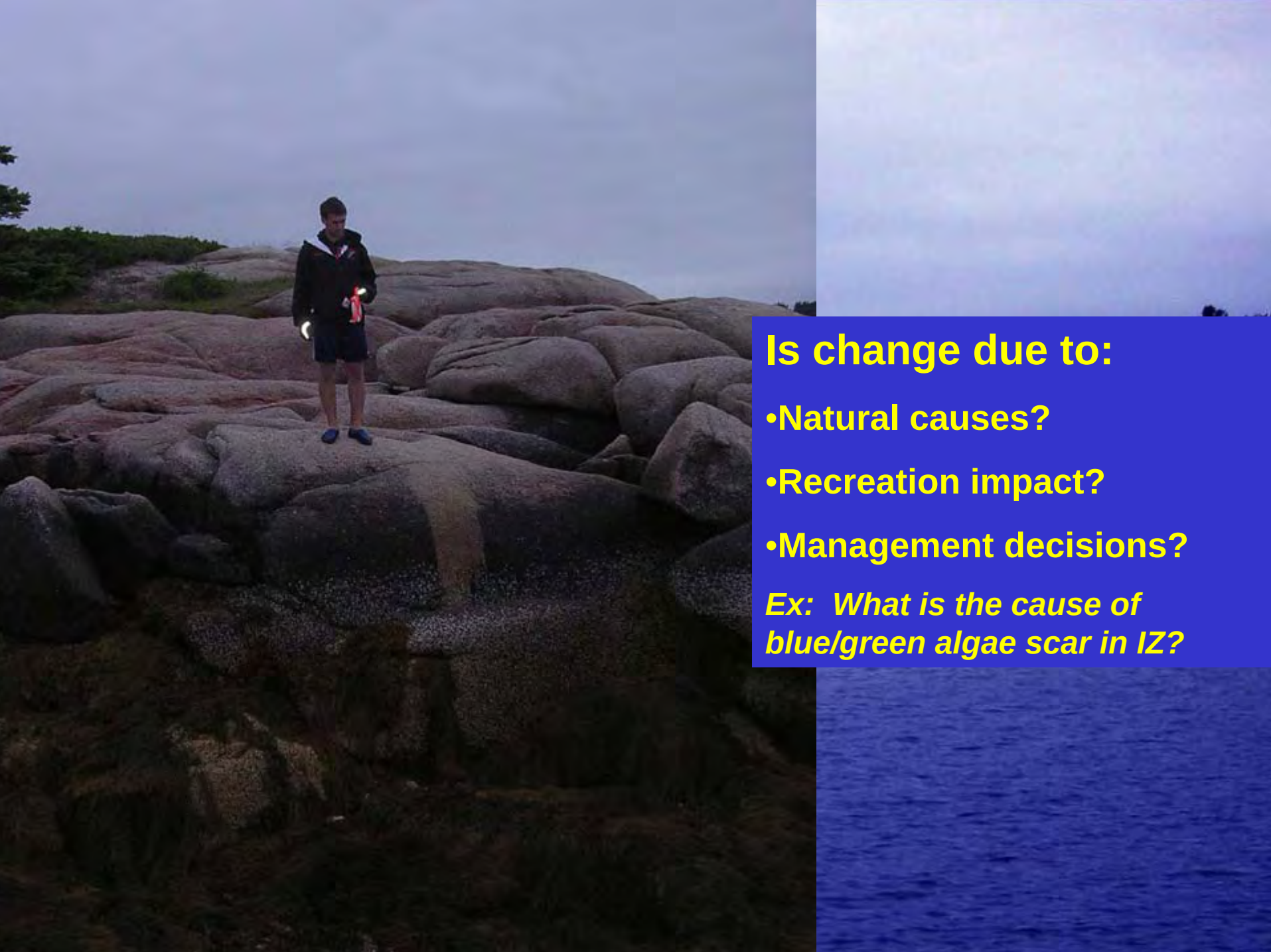
Bowdoin

College of the Atlantic
the liberal arts college of human ecology on the maine coast

Sea Grant Maine

MAINE ISLAND TRAIL ASSOCIATION

DEPARTMENT OF CONSERVATION
Bureau of Parks & Lands
STATE OF MAINE



Is change due to:

- Natural causes?
- Recreation impact?
- Management decisions?

Ex: What is the cause of blue/green algae scar in IZ?

Correlating numbers and behavior with impacts

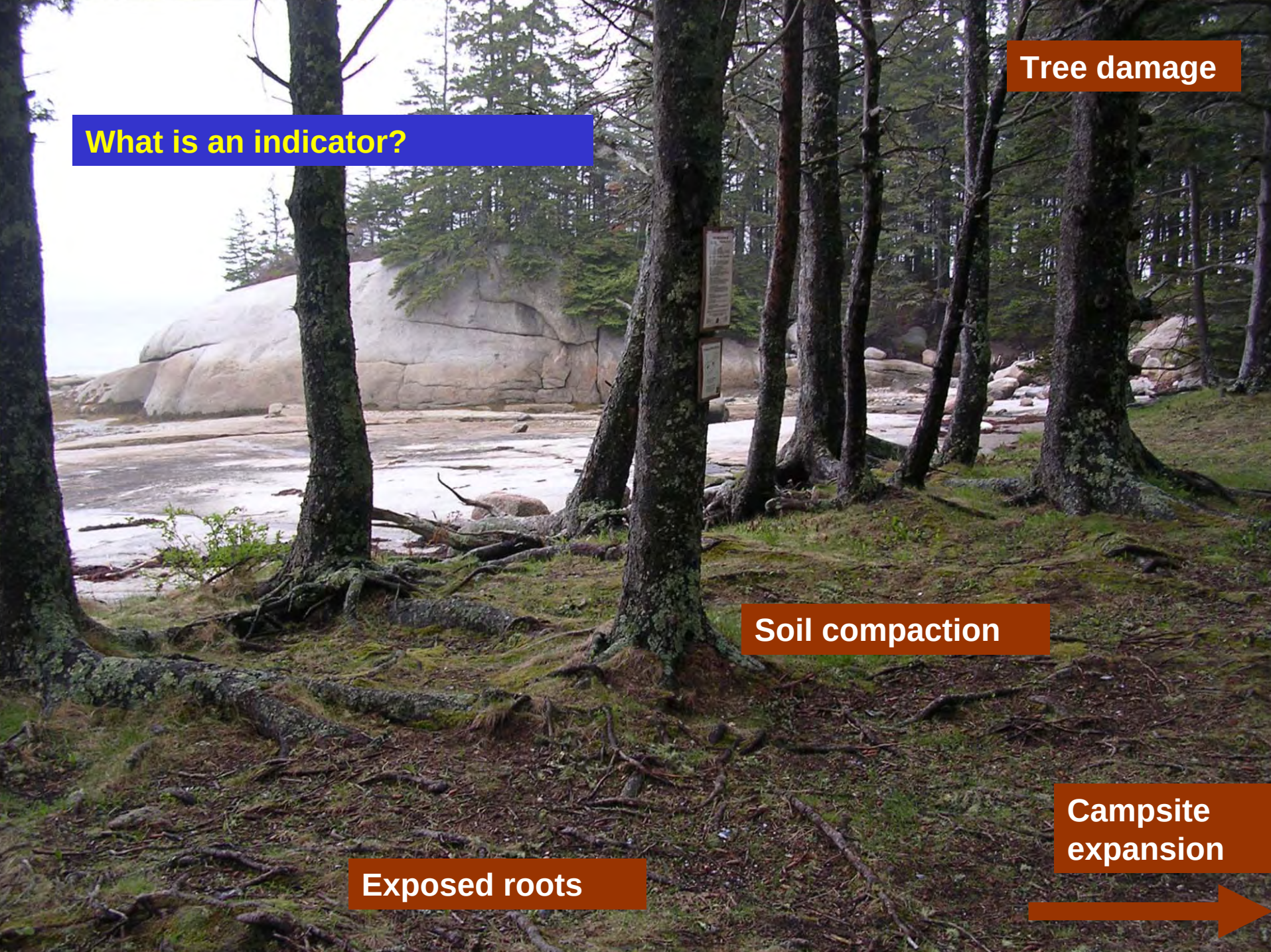
Informing management decisions:

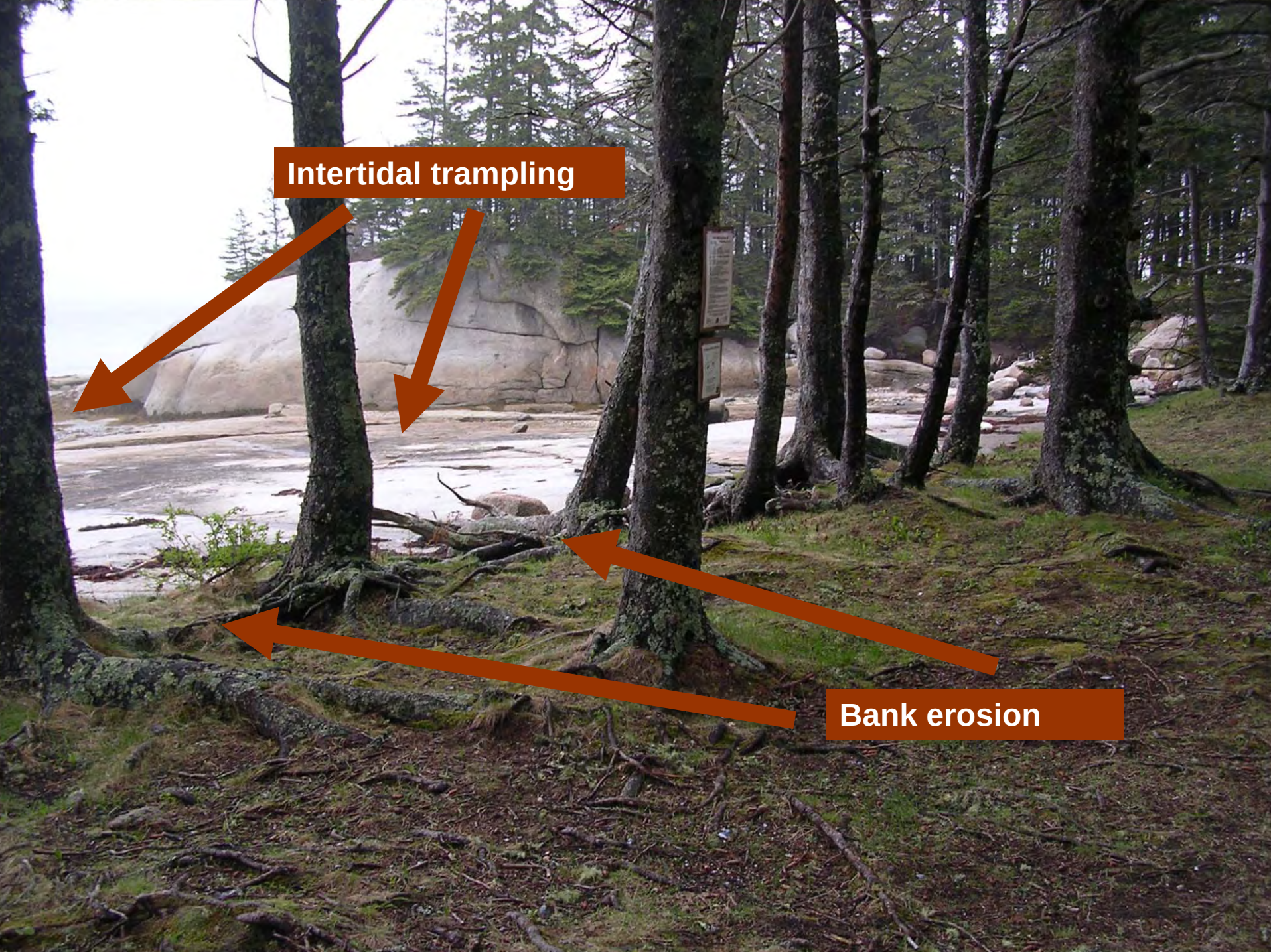
How does data on recreational impacts compare to established standards?

Long Island


Using indicators to define standards of acceptable change…

Three island zones


What is an indicator?
Tree damage
Soil compaction
Campsite expansion
Exposed roots


Intertidal trampling
Bank erosion

Campsite sprawl

Fire scarring


Upland impact indicators
(Methods by Marion)
-campsite area
-soil exposure
-vegetation trampling
-root exposure
-trails
Steves Island
07.07.2005

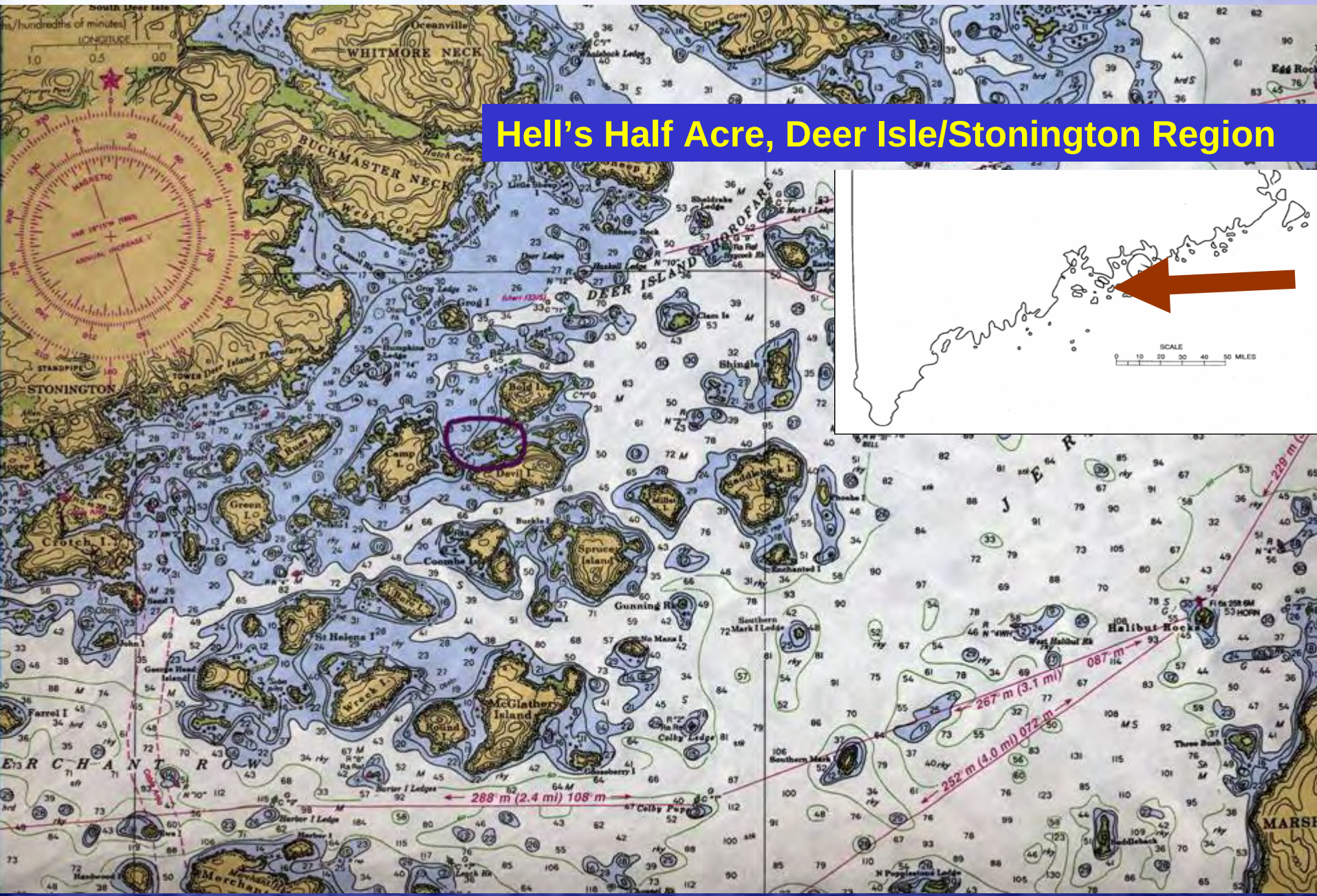

Hells Half Acre
Shoreline impact indicators
-condition and shape of shoreline
-access trails
-erosion

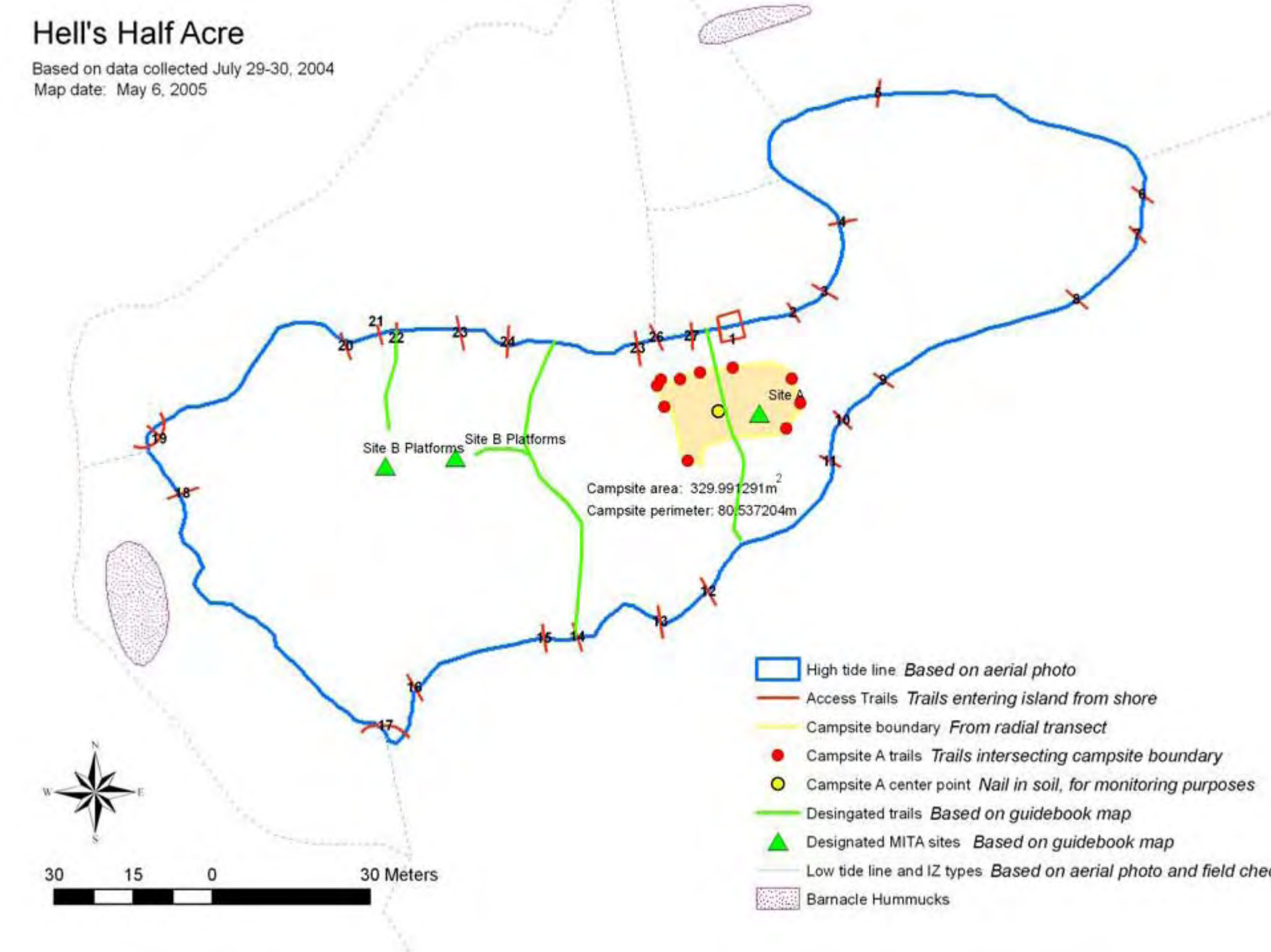

Intertidal impact indicators
-composition of IZ
-Barnacle hummocks
-Ascophylum aging
-photo transect
Bangs Island

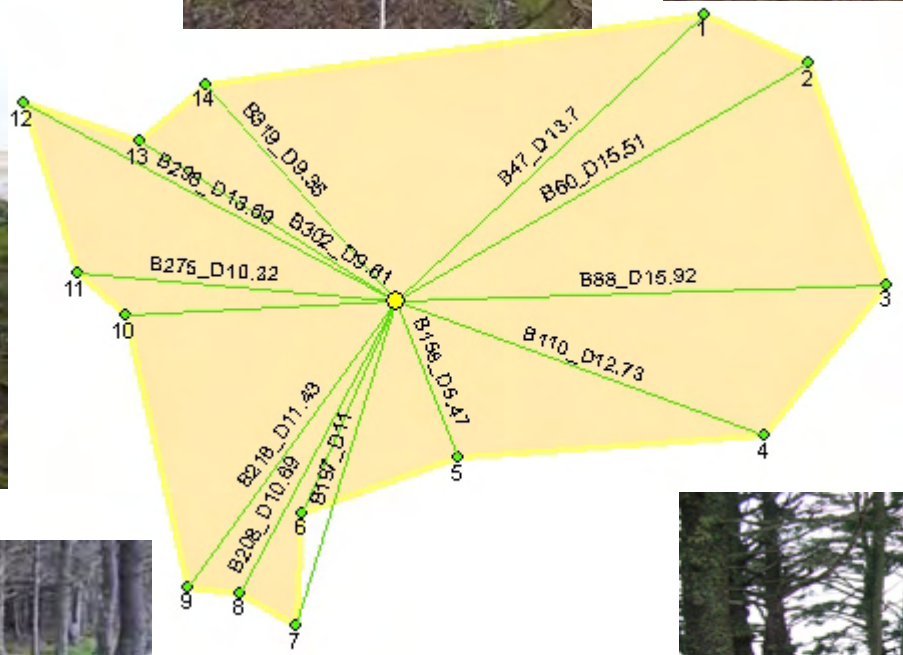
Baseline inventories

Mapping indicators, habitat inventories, community assessments, diversity surveys, etc…

Hell's Half Acre, Deer Isle/Stonington Region




Hell's Half Acre
Based on data collected July 29-30, 2004
Map date: May 6, 2005
Site A
Site B Platforms
Site B Platforms
Campsite area: 329.991291m 2
Campsite perimeter: 80.537204m
High tide line Based on aerial photo
Access Trails Trails entering island from shore
Campsite boundary From radial transect
Campsite A trails Trails intersecting campsite boundary
Campsite A center point Nail in soil, for monitoring purposes
Desingated trails Based on guidebook map
Designated MITA sites Based on guidebook map
Low tide line and IZ types Based on aerial photo and field chec
Barnacle Hummucks
30 15 0 30 Meters


1
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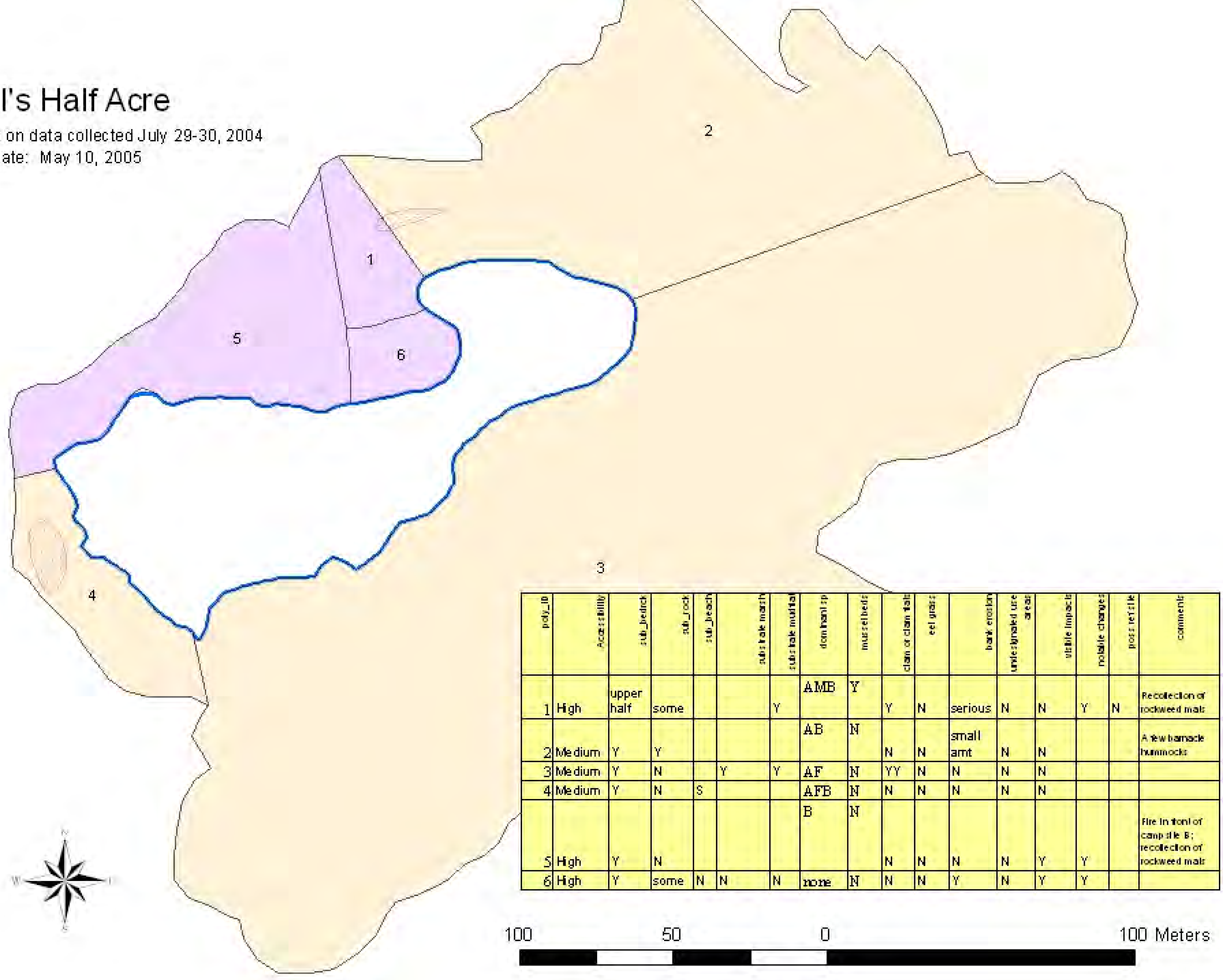
11
12
13
14
B47_D13.7
B60_D15.51
B88_D15.92
B110_D12.73
B158_D5.47
B197_D14
B208_D10.89
B219_D11.43
B275_D10.32
B296_D13.69
B302_D9.61
B319_D9.35

Hell's Half Acre

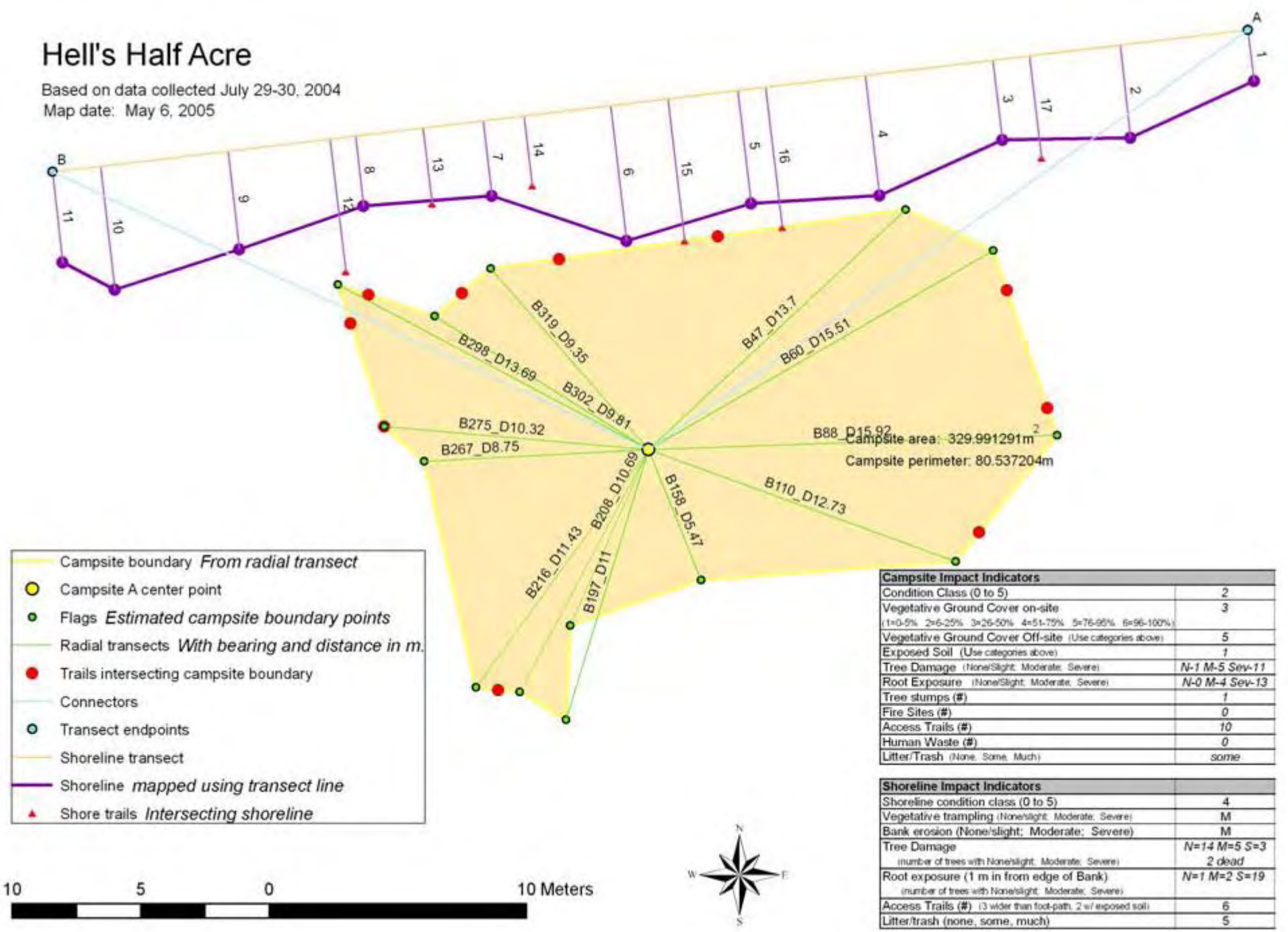
Based on data collected July 29-30, 2004
Map date: May 10, 2005



poly_ID	Accessibility	sub_bedrck	sub_rock	sub_beach	substrate marsh	substrate mudflat	dominant sp	musselbeds	clam or clam flats	eel grass	bank erosion	undesignated use areas	visible impacts	notable changes	poss ret site	comments
1	High	upper half	some			Y	AMB	Y	Y	N	serious	N	N	Y	N	Recollection of rockweed mats
2	Medium	Y	Y				AB	N	N	N	small amt	N	N			A few barnacle hummocks
3	Medium	Y	N		Y	Y	AF	N	YY	N	N	N	N			
4	Medium	Y	N	S			AFB	N	N	N	N	N	N			
5	High	Y	N				B	N	N	N	N	N	Y	Y		Fire in front of camp site B; recollection of rockweed mats
6	High	Y	some	N	N	N	none	N	N	N	Y	N	Y	Y		

Hell's Half Acre

Based on data collected July 29-30, 2004
Map date: May 6, 2005



Campsite Impact Indicators	
Condition Class (0 to 5)	2
Vegetative Ground Cover on-site (1=0-5% 2=6-25% 3=26-50% 4=51-75% 5=76-95% 6=96-100%)	3
Vegetative Ground Cover Off-site (Use categories above)	5
Exposed Soil (Use categories above)	1
Tree Damage (None/Slight; Moderate; Severe)	N-1 M-5 Sev-11
Root Exposure (None/Slight; Moderate; Severe)	N-0 M-4 Sev-13
Tree stumps (#)	1
Fire Sites (#)	0
Access Trails (#)	10
Human Waste (#)	0
Litter/Trash (None, Some, Much)	some

Shoreline Impact Indicators	
Shoreline condition class (0 to 5)	4
Vegetative trampling (None/slight; Moderate; Severe)	M
Bank erosion (None/slight; Moderate; Severe)	M
Tree Damage (number of trees with None/slight; Moderate; Severe)	N=14 M=5 S=3 2 dead
Root exposure (1 m in from edge of Bank) (number of trees with None/slight; Moderate; Severe)	N=1 M=2 S=19
Access Trails (#) (3 wider than foot-path, 2 w/ exposed soil)	6
Litter/trash (none, some, much)	5

Next step: Engaging volunteers, students, recreational boaters and local residents to monitor the places they love to explore.