

ShoreZone Coastal Inventory Katmai National Park

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Collecting Imagery

latitude

longitude

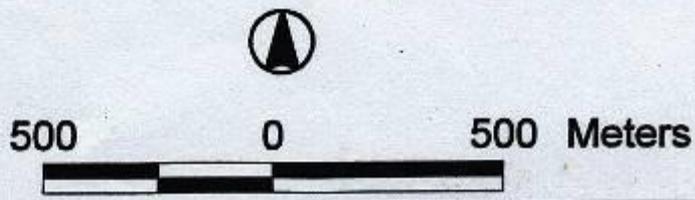
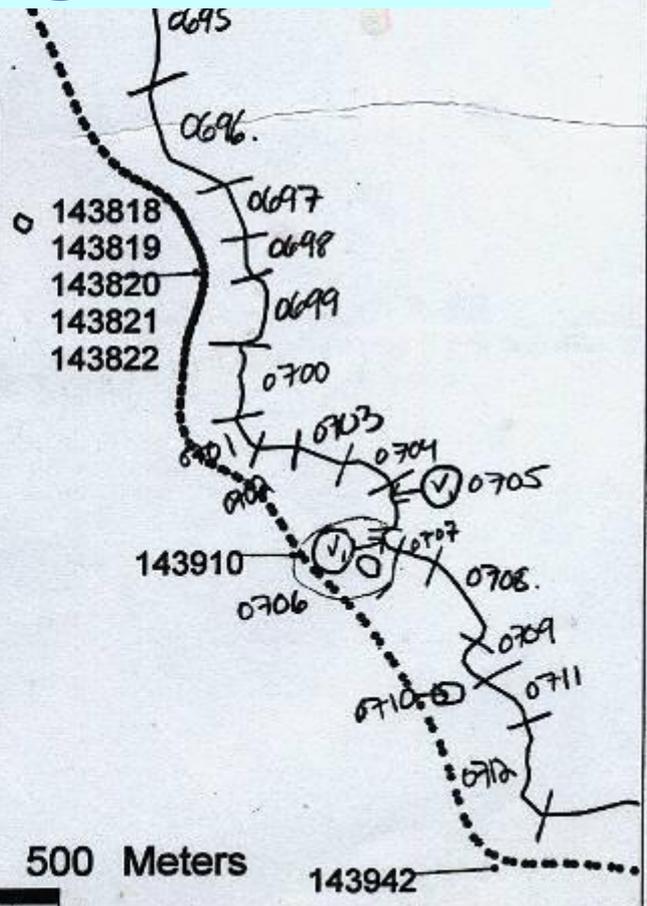
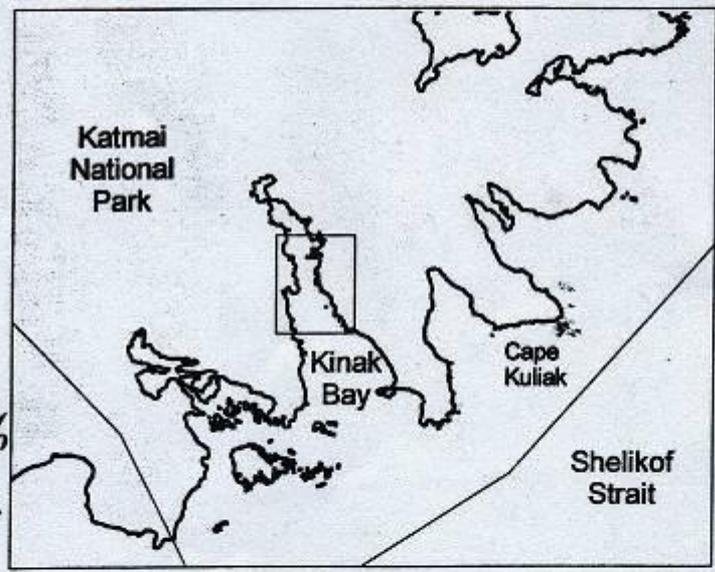
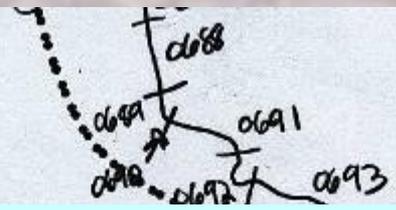
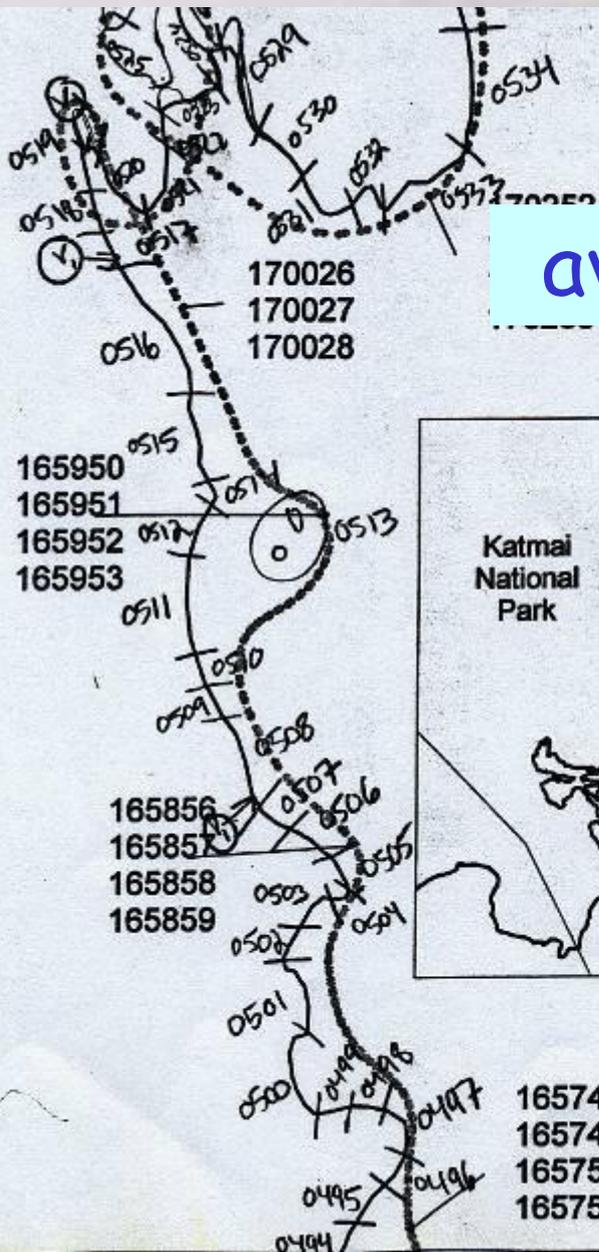


- video acquired during the lowest tides of the year
- all imagery is georeferenced

Classification



average unit length = 320m





688

690

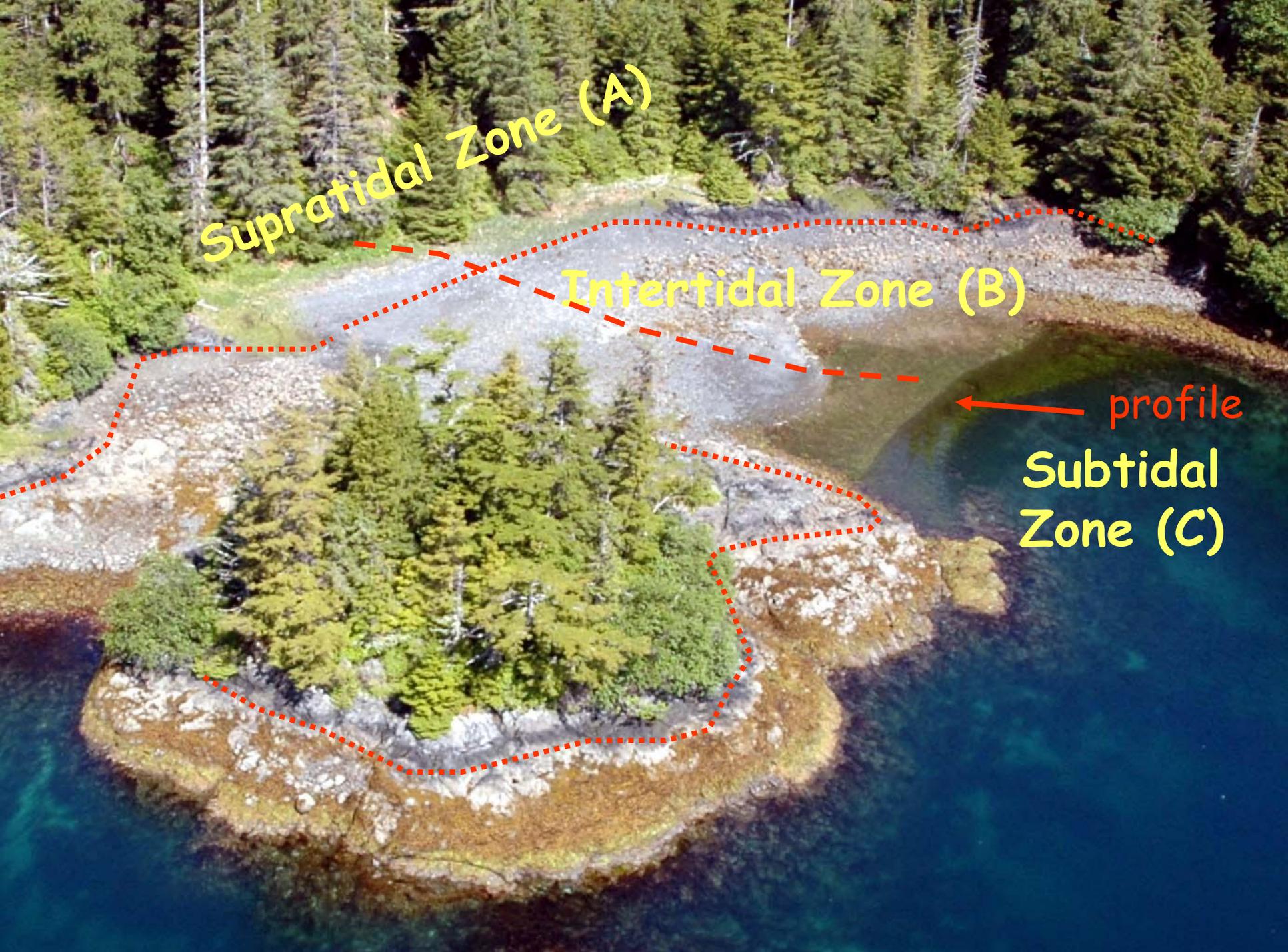
687

689

Supratidal Zone (A)

Intertidal Zone (B)

profile
Subtidal
Zone (C)



Example of physical db attributes

Form: Beach, storm berm

Mtl: Biogenic organic over pebble /sand

GRA

Form: Beach, face

Mtl: pebble /sand &
cobble/peb/sand/bldr

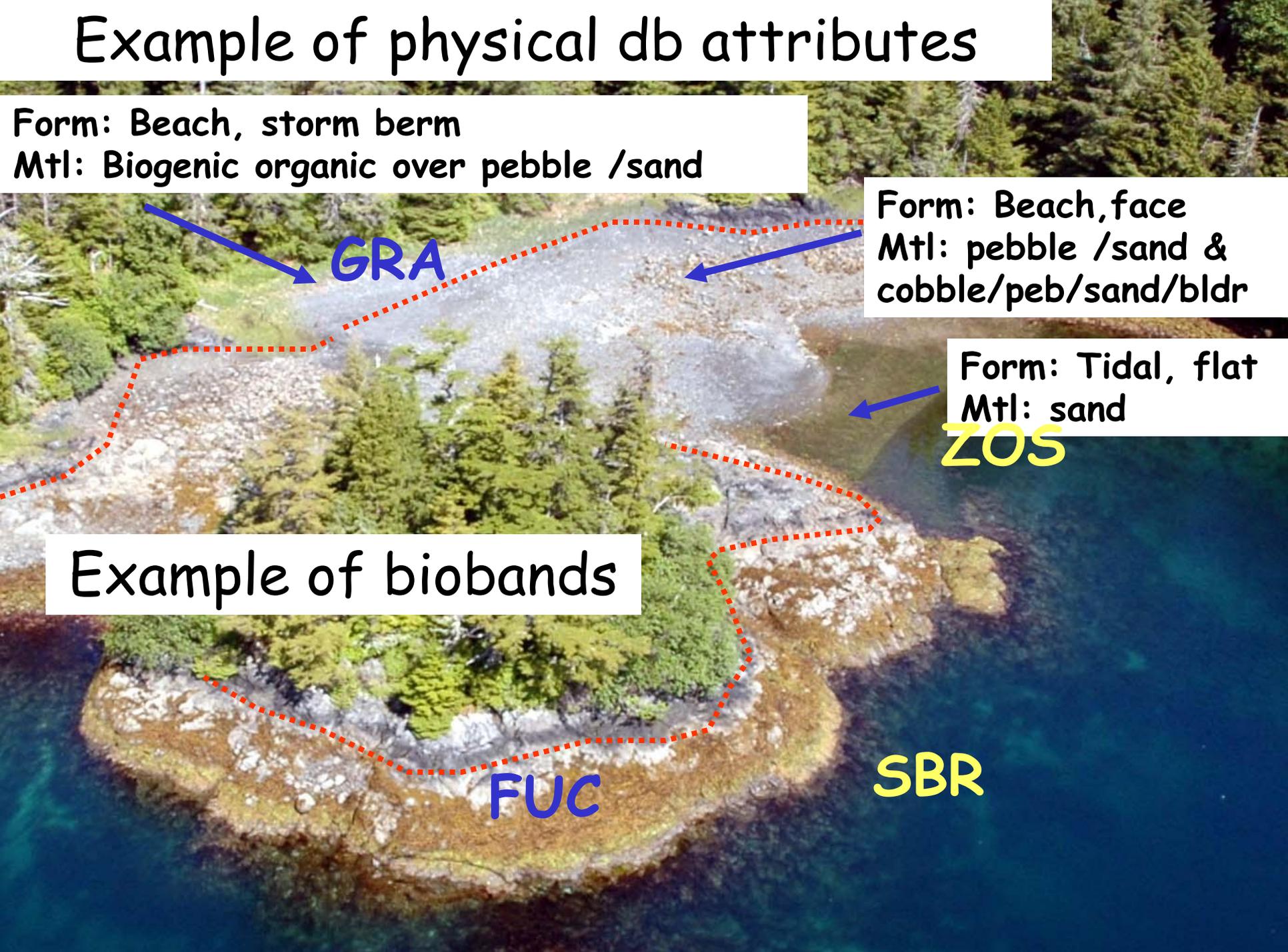
Form: Tidal, flat
Mtl: sand

ZOS

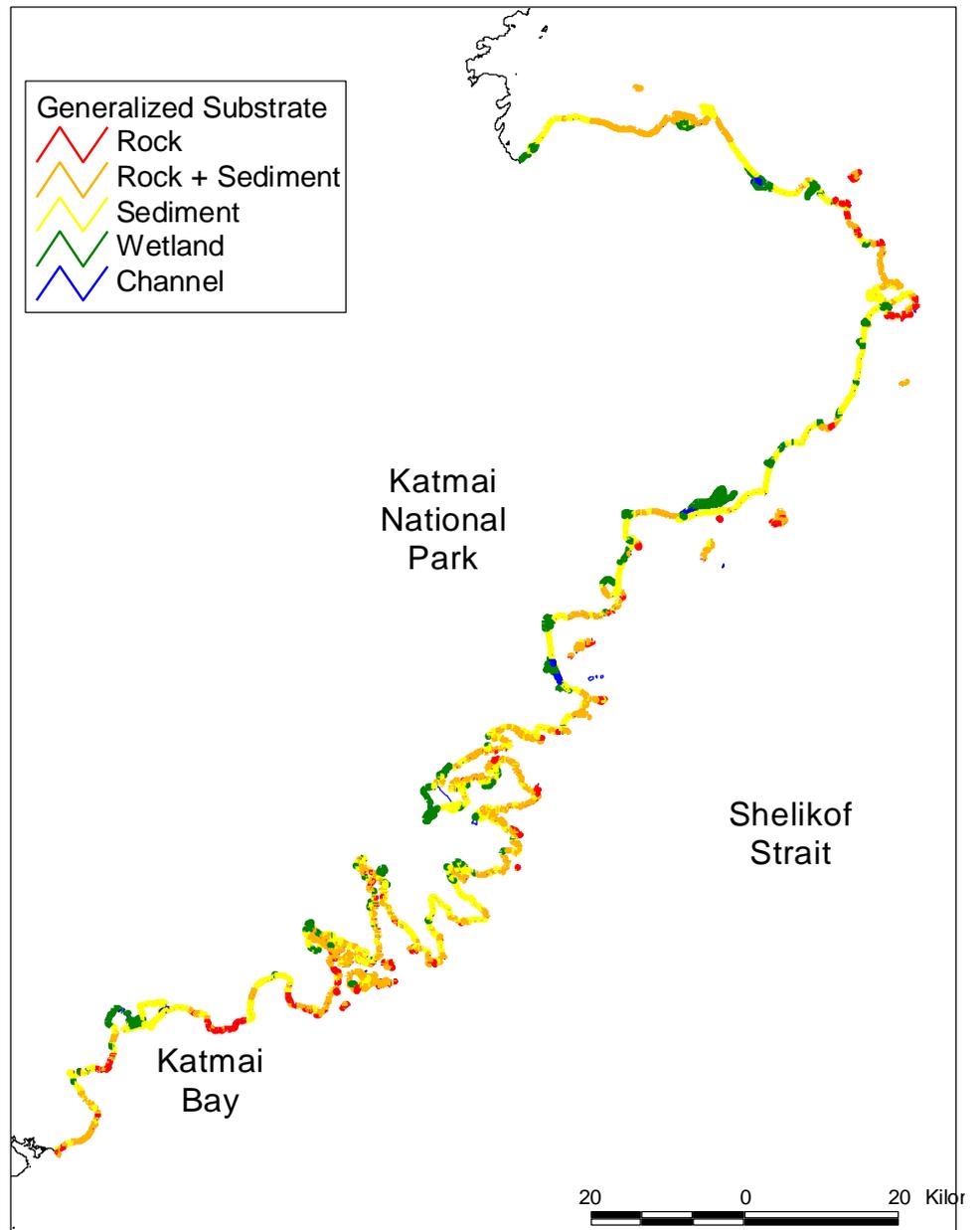
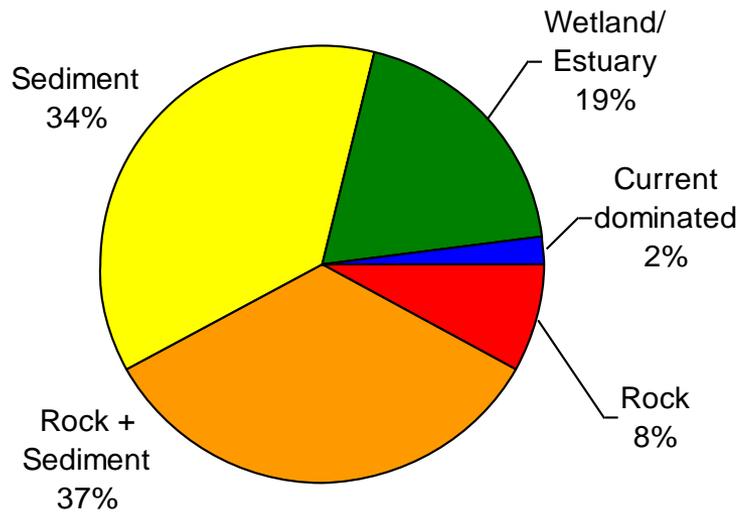
Example of biobands

FUC

SBR



Summary Substrate Types

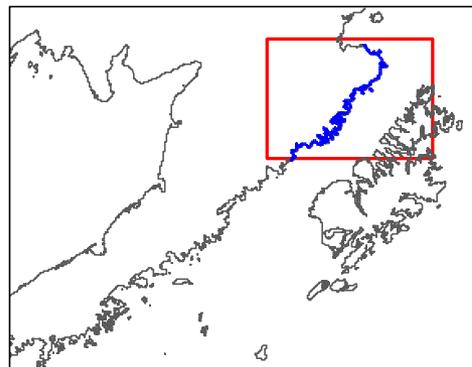


What is a Bioband?

- defined by a characteristic species assemblage
- visible from the air
- has a distinctive across-shore elevation
- occurs at certain wave exposures
- present on specific substrates

Eelgrass & Surfgrass

- Seagrass Biobands
- Eelgrass
 - Continuous
 - Patchy
 - Surfgrass
 - Continuous
 - Patchy



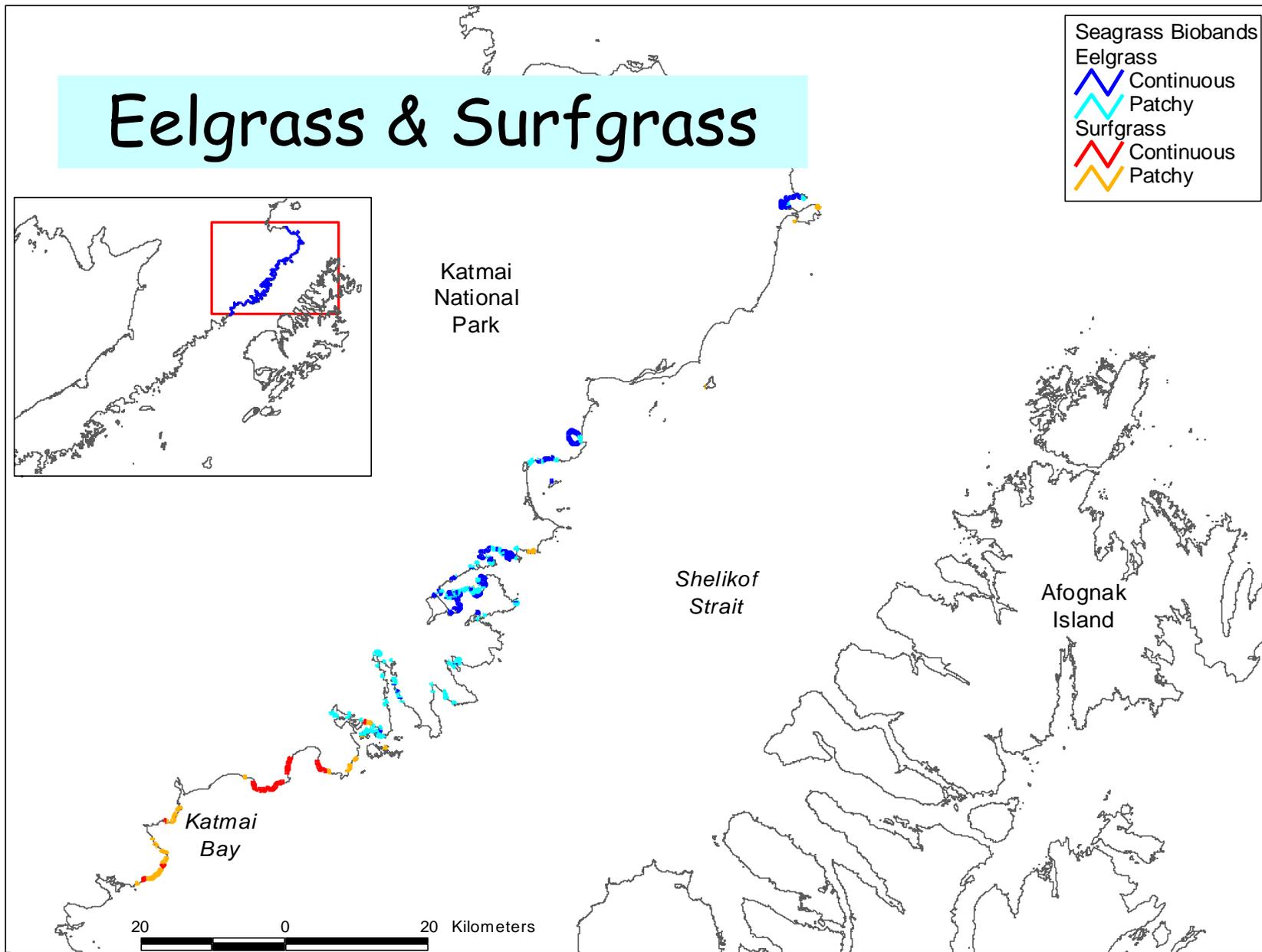
Katmai
National
Park

Shelikof
Strait

Afognak
Island

Katmai
Bay

20 0 20 Kilometers



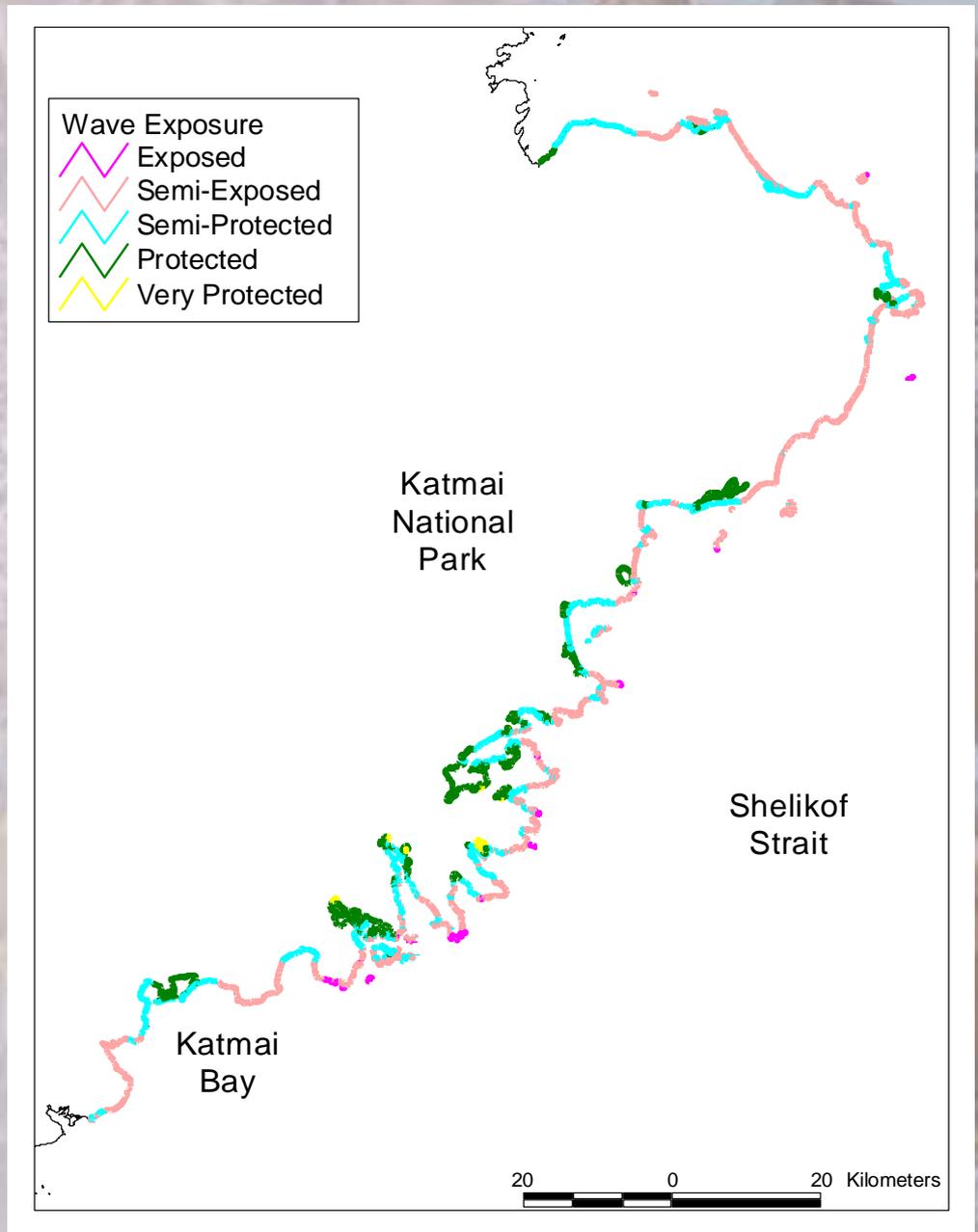
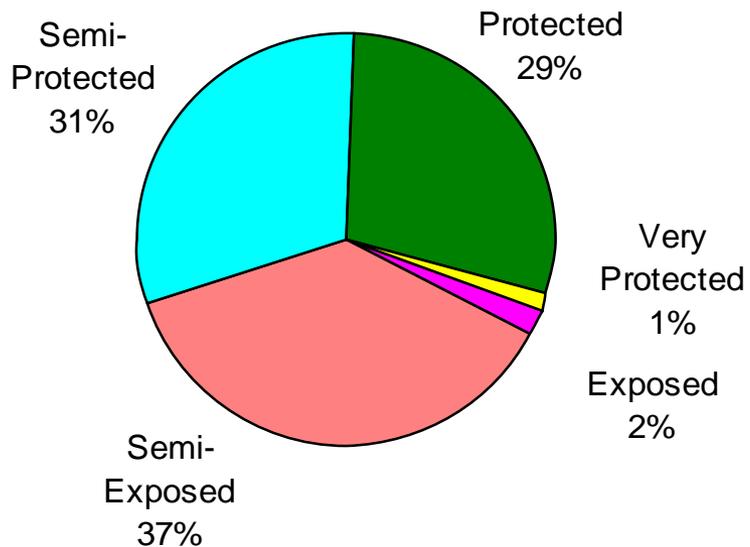
What is Biological Wave Exposure?

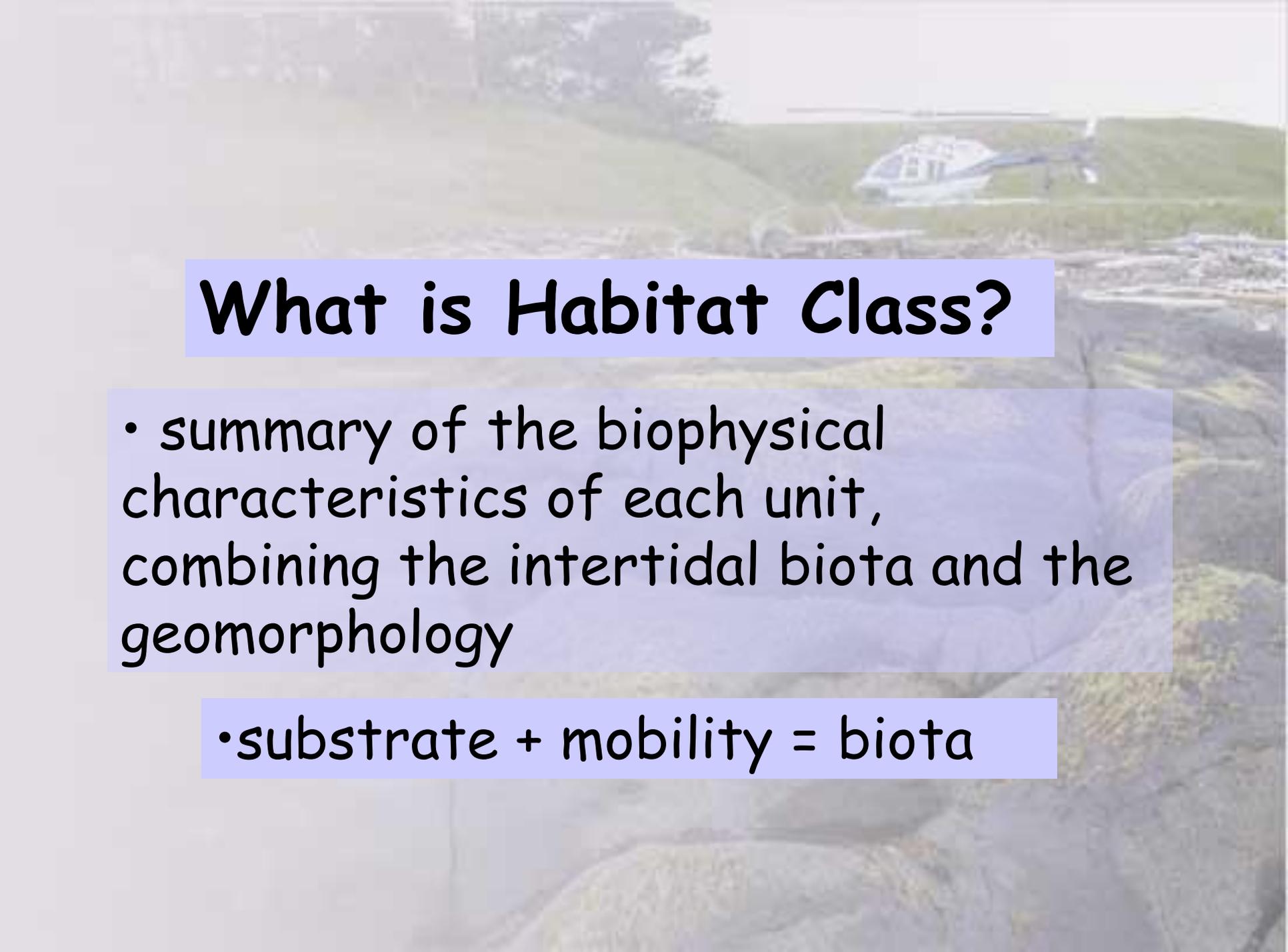
- determined from the observed biobands
- assigned a set of indicator species and a 'typical' set of biobands
- is considered the most accurate representation of actual exposure

Biobands by Exposure

	VE/Exposed	Semi-Exposed	Semi-Protected	Protected/VP
VER	■	■	■	■
PUC				■
GRA				■
BAR	■	■	■	
FUC		■	■	■
BMU	■	■		
ULV			■	■
HAL			■	
RED	■	■	■	
ALA		■		
SBR		■	■	
CHB	■	■		
ZOS				■
ALF		■		
NER		■		

Biological Wave Exposure





What is Habitat Class?

- summary of the biophysical characteristics of each unit, combining the intertidal biota and the geomorphology

- substrate + mobility = biota

Habitat Class - Kukak Bay

- Exposed, Stable/Partially Mobile
- Semi-Exposed, Stable/Partially Mobile
- Semi-Protected, Stable/Partially Mobile
- Protected, Stable/Partially Mobile
- Mobile Substrate
- Wetland
- Current-Dominated Channel

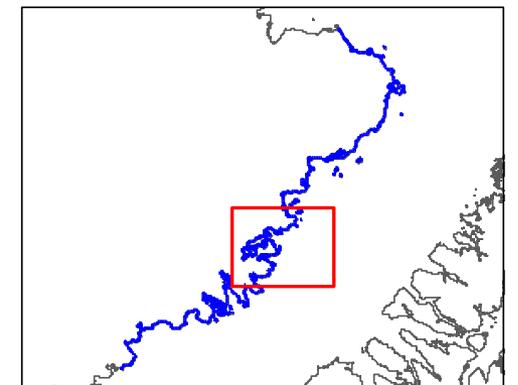
Katmai
National
Park

Kukak
Bay

Cape
Nukshak

Shelikof
Strait

Cape
Gull



4 0 4 Kilometers

- Wetland Biobands
- GRA/PUC/SED
 - GRA/SED
 - PUC/SED
 - GRA/PUC
 - GRA
 - PUC

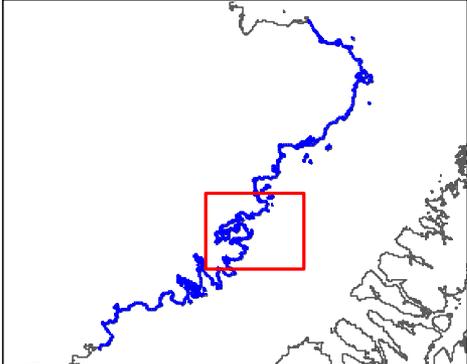
Katmai
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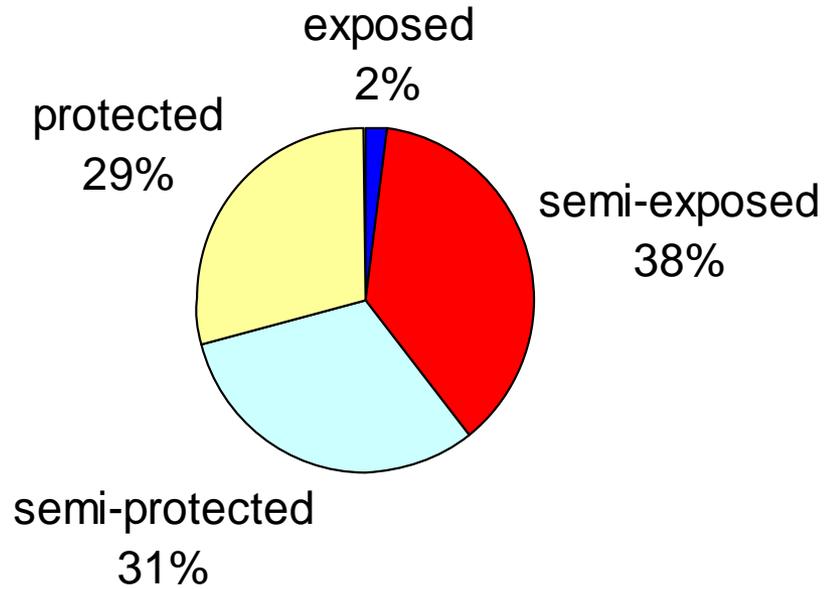


4 0 4 Kilometers

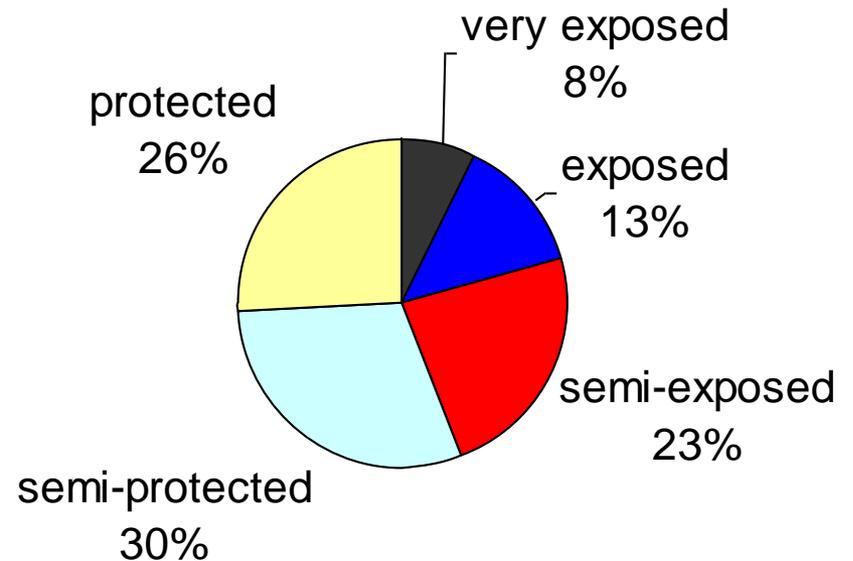
A horizontal scale bar with three segments. The first segment is labeled '4', the middle segment is labeled '0', and the last segment is labeled '4'. Below the bar, the word 'Kilometers' is written.

Comparing Regional Exposure Classification

Katmai N.P. Wave Exposure

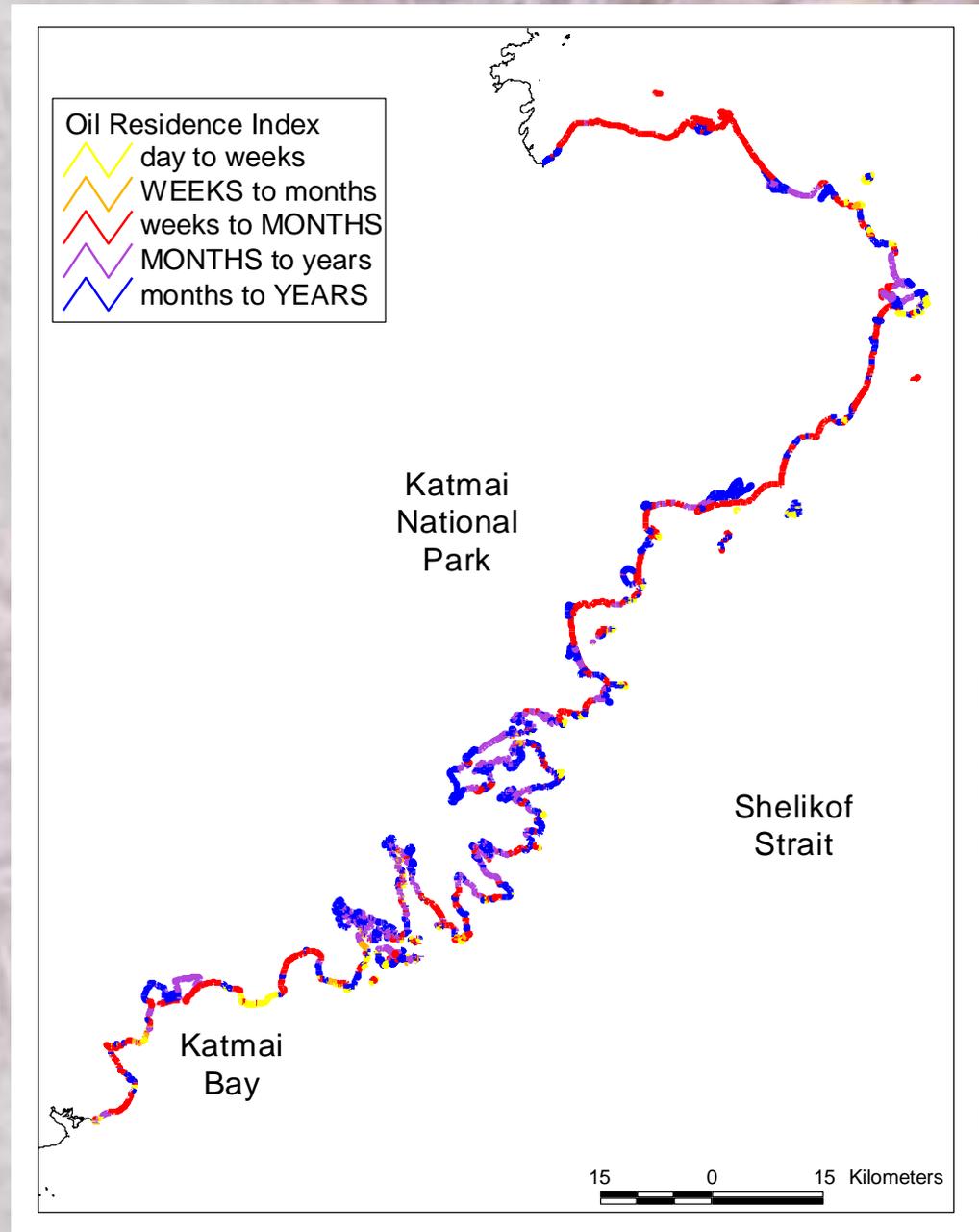


Kenai N.P. Wave Exposure



Oil Residence Index Model

- based on unit's substrate and biological wave exposure



ShoreZone mapping...

- regional patterns represent differences in distribution of habitats
- richness of descriptive attributes encourages innovative combinations
- regional comparisons and analyses are available in the Alaskan ShoreZone data

www.coastalaska.net

