

# PROTECTING TRADITIONAL PLANTS IN KOUCHIBOUGUAC NATIONAL PARK OF CANADA: DRR AND ADAPTATIONS STRATEGIES

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□ Ecologist at the park



# Kouchibouguac

- Established in 1969 through the expropriation of several families who lived mostly from agricultural activities including animal pasture, hay fields, and crop such as potatoes
- 225,000 visitors per year



# Sea level rise and storm surges



(Vasseur and Catto 2008)





# See level rise data

Site	Vertical motion (cm 2000-2100)	RSL (cm 2000-2100)
Cape Jourimain	$15 \pm 5$	$59 \pm 35$
Shemogue	$13 \pm 5$	$57 \pm 35$
Cap-Pelé	$12 \pm 5$	$56 \pm 35$
Shediac	$10 \pm 5$	$54 \pm 35$
Bouctouche	$9 \pm 5$	$53 \pm 35$
Kouchibouguac	$7 \pm 5$	$51 \pm 35$
Escuminac	$6 \pm 5$	$50 \pm 35$



**Kellys Beach in 1998**



**Kellys Beach in 2002**

# Salt marshes - Traditional plants

- Develop adaptive management strategies with communities like Elsipogtog
- Evaluate, over the years the effects of climate change on salt marshes and act accordingly
- Main important factor: traditional medicinal plants







Sweetgrass / holygrass



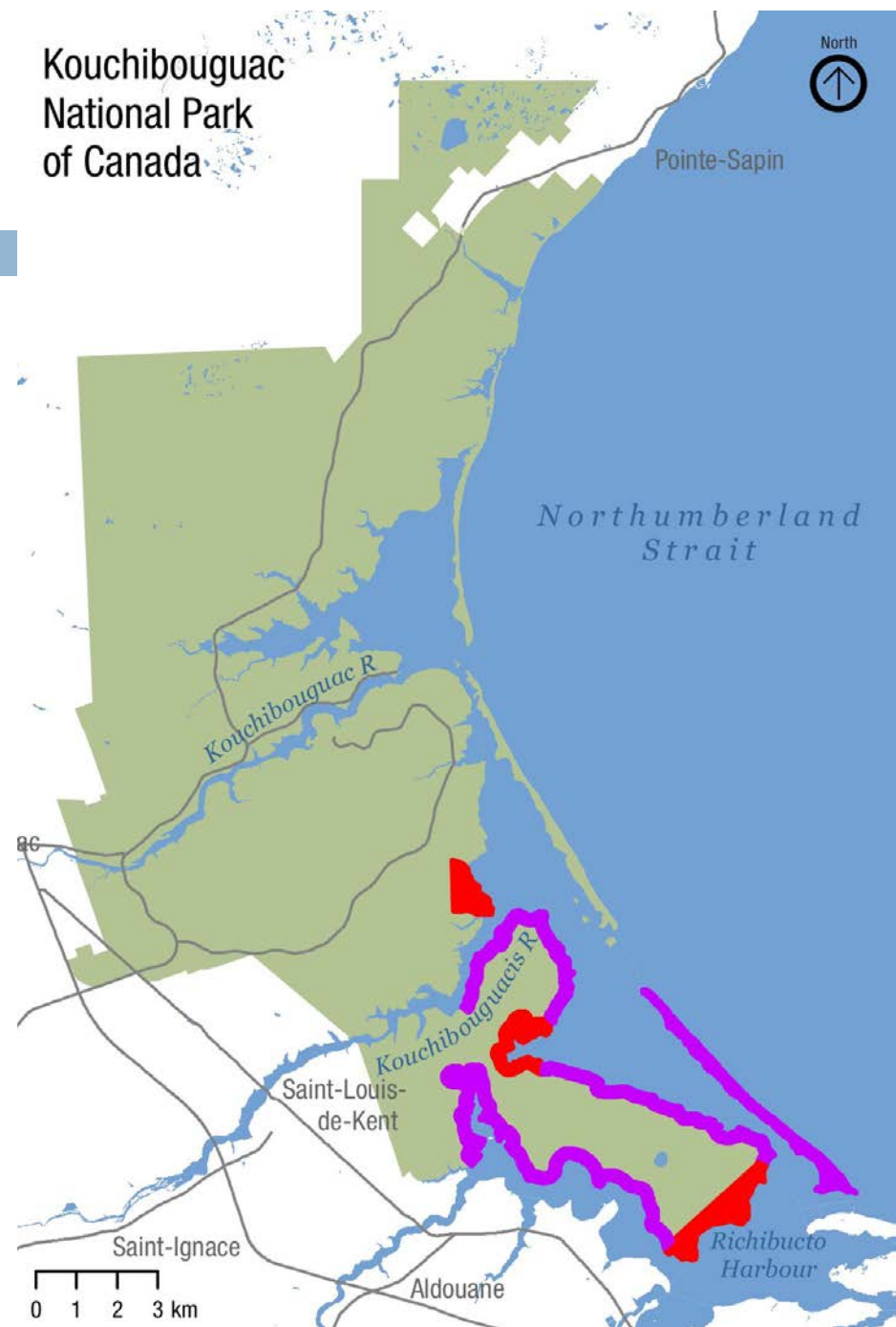
Sea milkwort

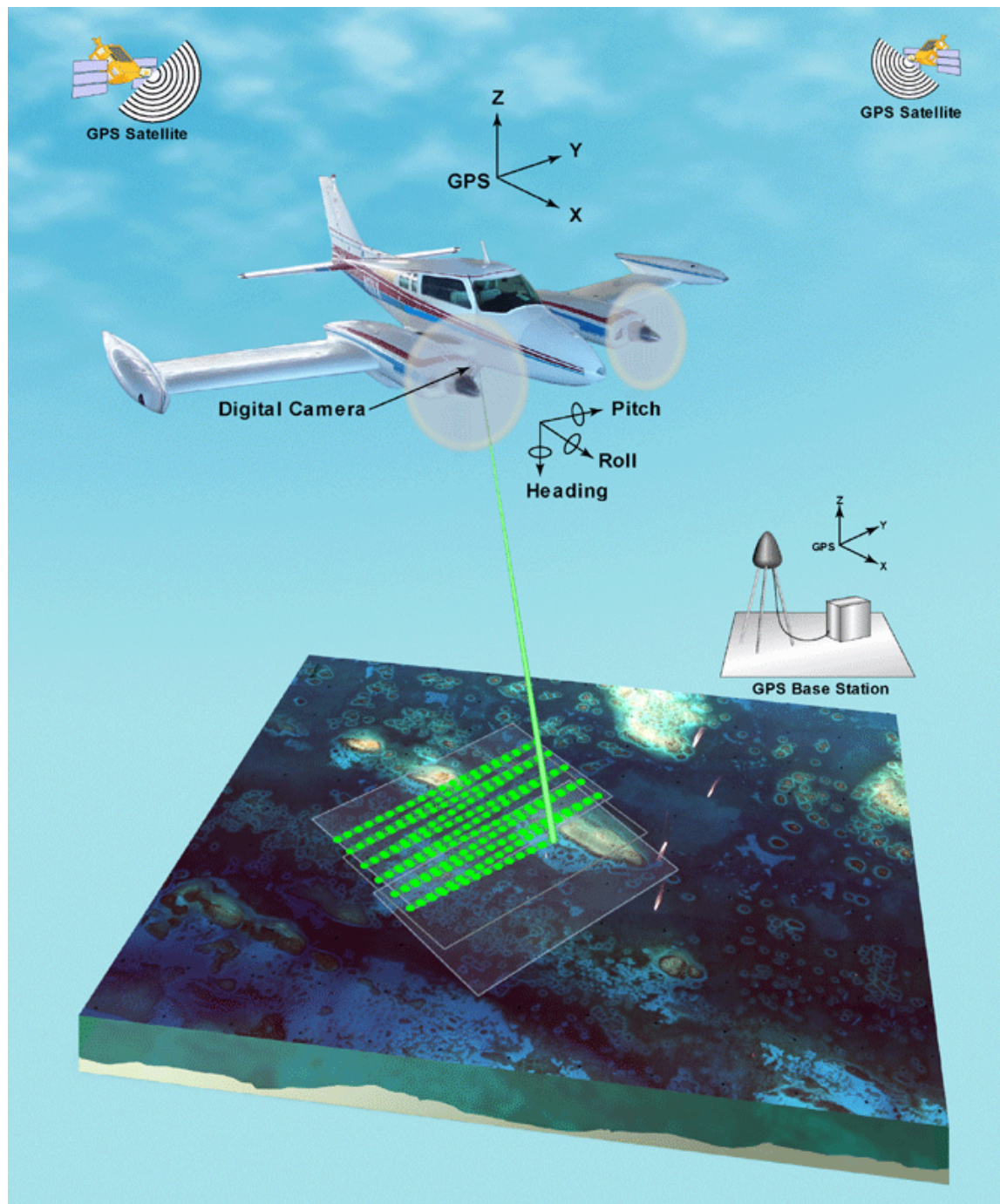
Spike grass



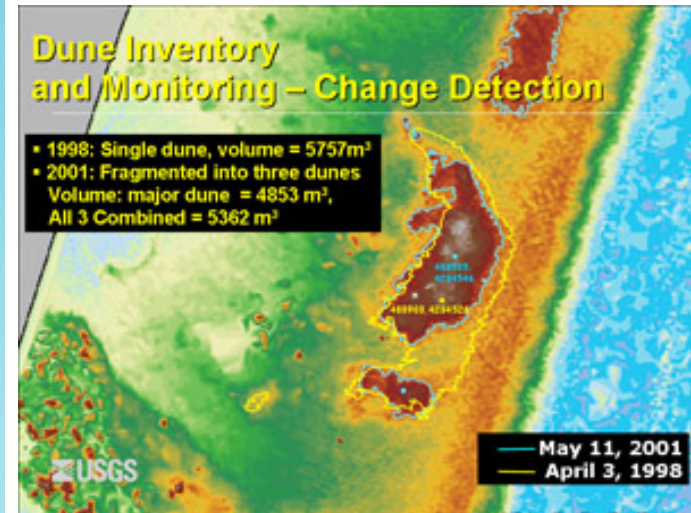


# Distribution of sweetgrass





# Lidar



DEM: digital  
elevation  
model

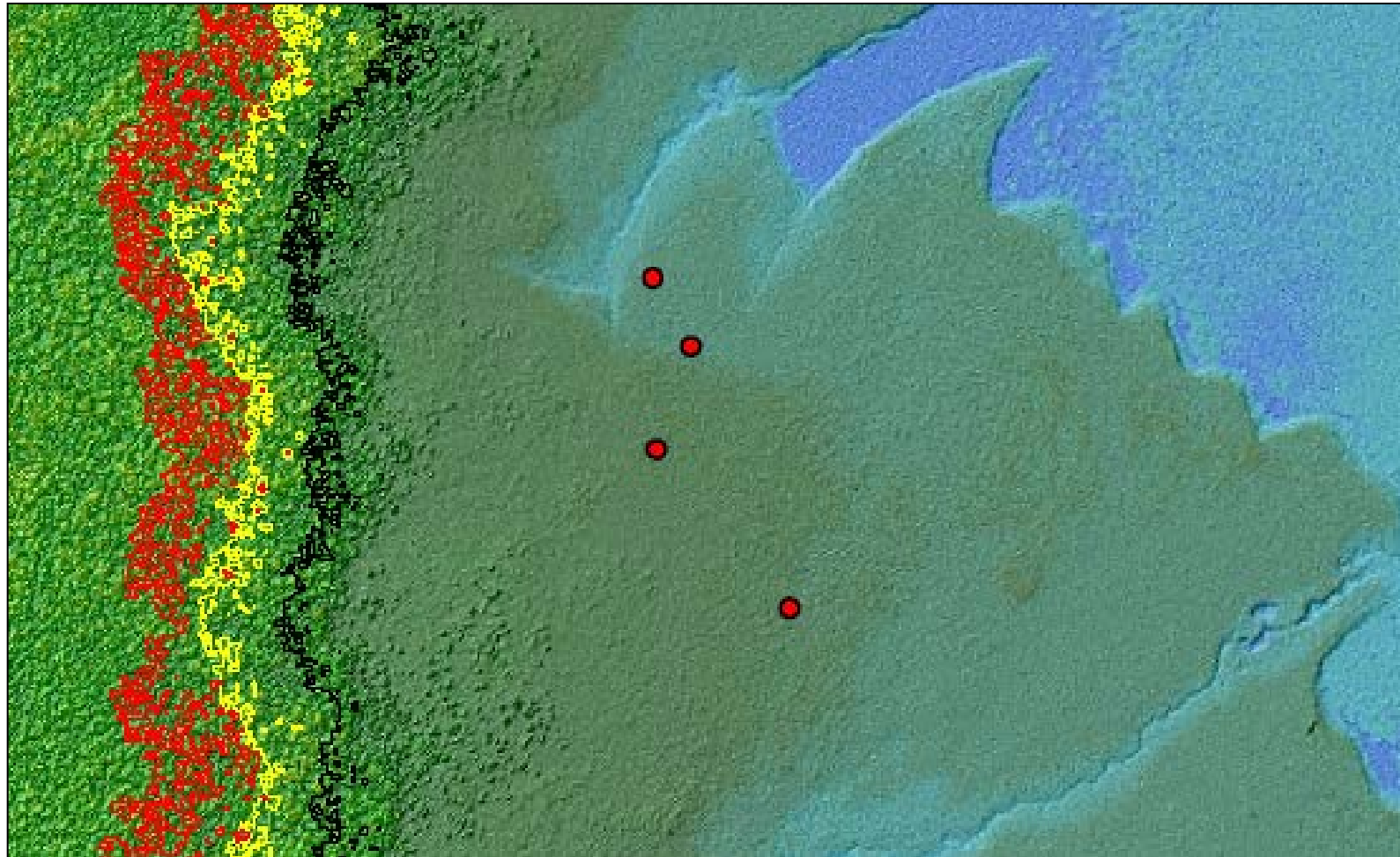
# Sweetgrass

Flooding levels:

2.05m

3.05m

3.25m



Anse à Simon à Michel Salt Marsh

—  
Approximately 100m



# Consequences for First Nations



- ❑ Loss of traditional species and thus cultural and socio-economic cohesion
- ❑ Moving populations
- ❑ Moving human infrastructure
- ❑ Changes in community activities

# Solutions – Mixed DRR and EbA

- Population protection
- Restoration when needed after storms
- Assisted migration and nurseries
- Early warning system for storms: reduce risks to humans
- Possibility to move infrastructure

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Thank you!