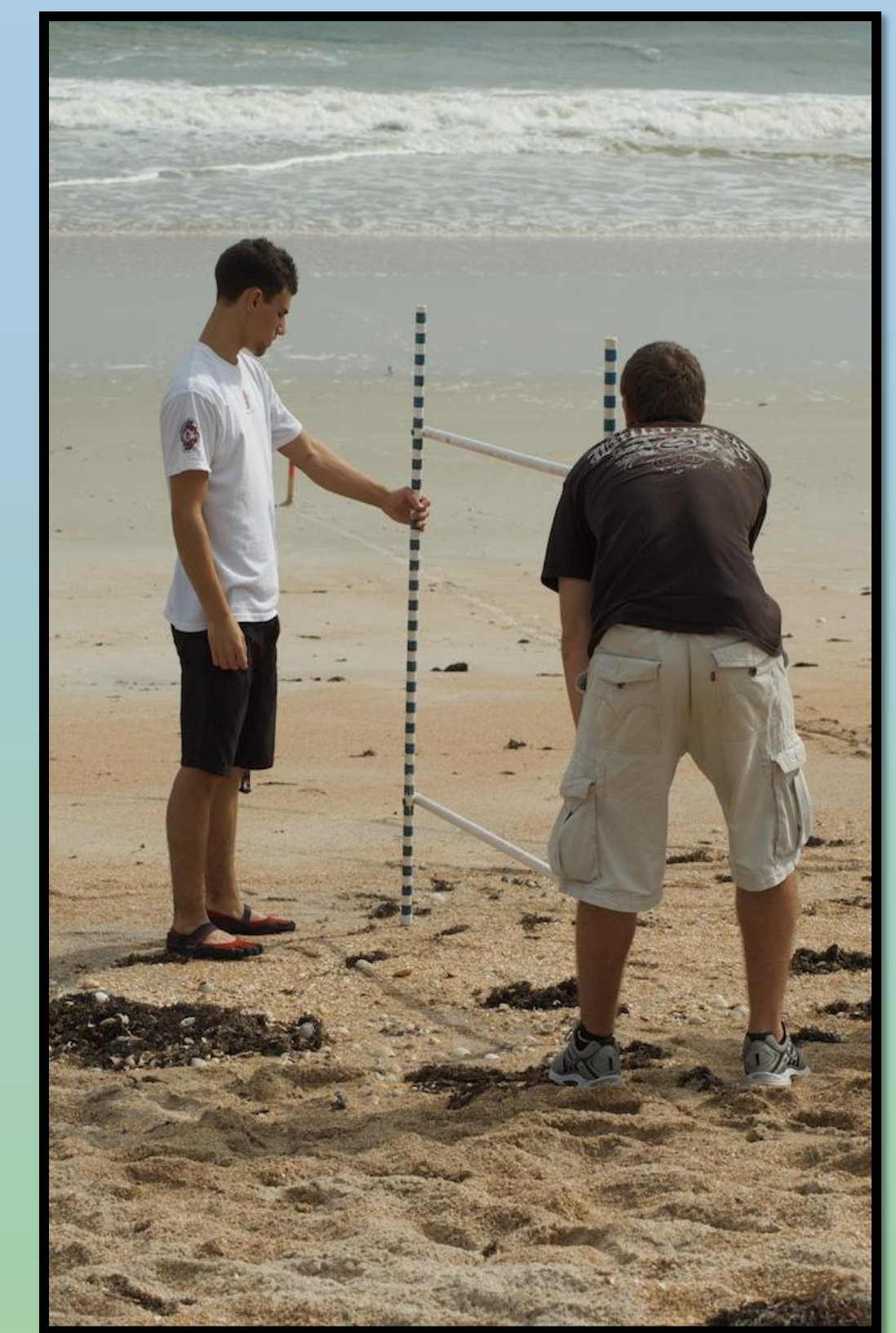
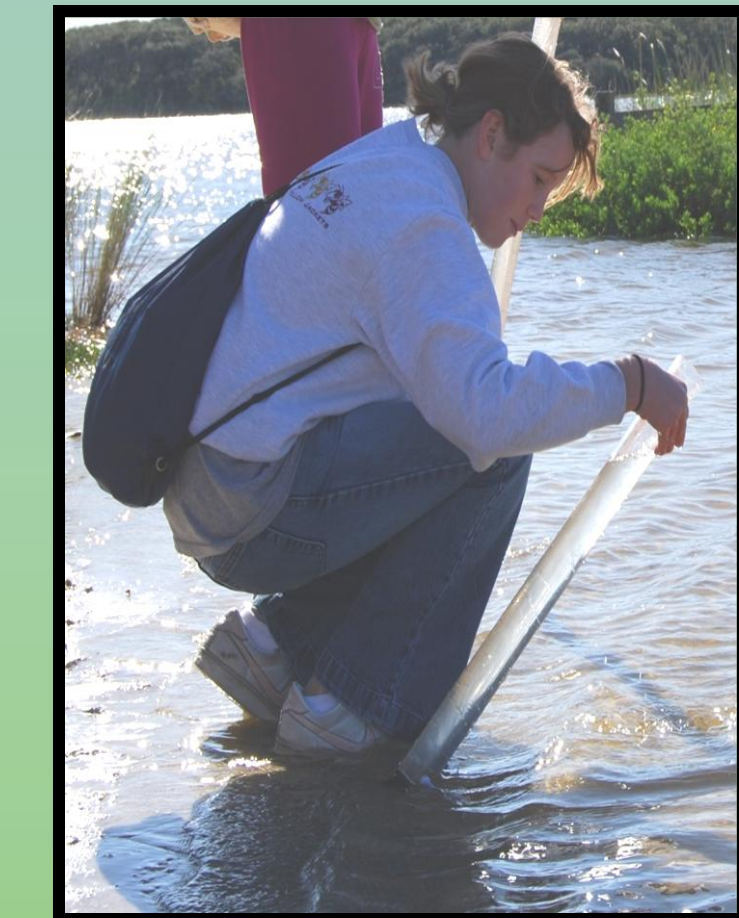


# Environmental Education Programming

## Watershed Field Studies for: High School and Undergraduate Students

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### Field Study Goals

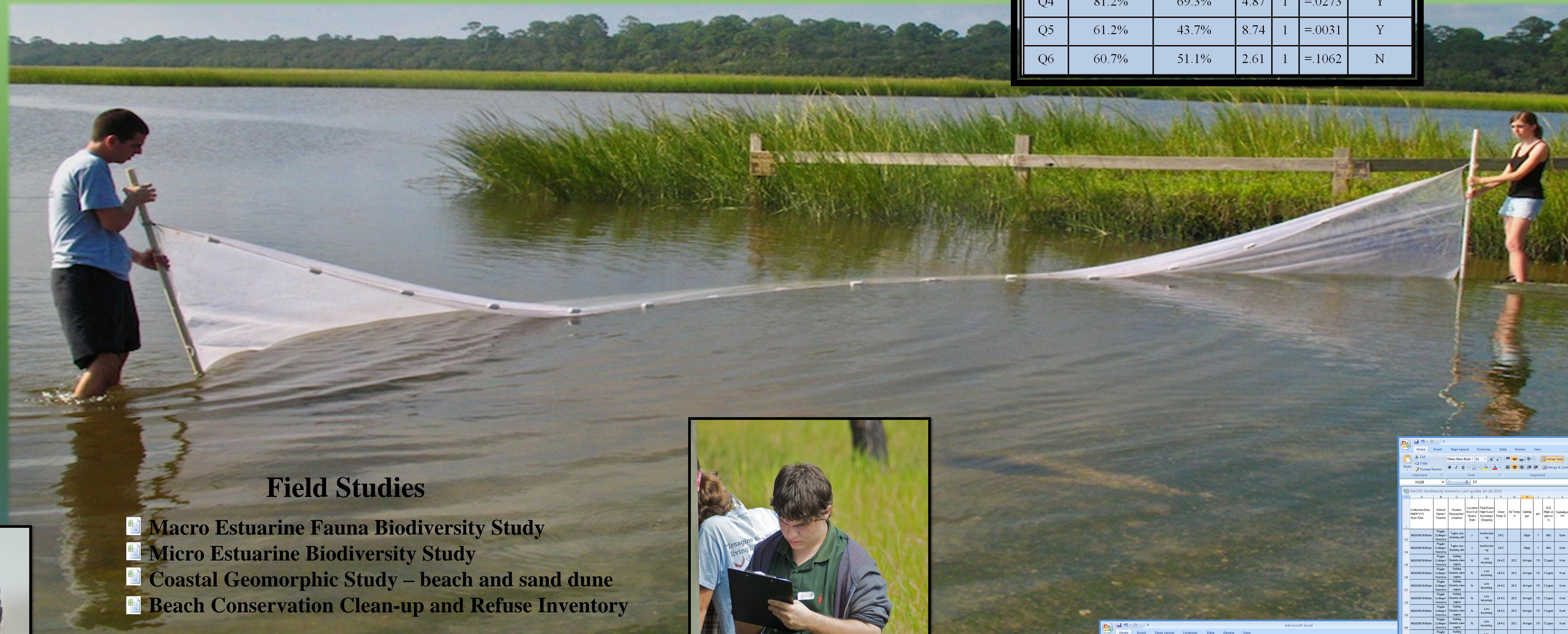
- Construct authentic learning opportunities for students to to:
  - ❖ apply knowledge
  - ❖ practice skills
  - ❖ gain experience in field techniques and equipment
  - ❖ communicate and work as a team
  - ❖ contribute to and handle a large dataset
- Build a culture encompassing environmental literacy and stewardship
- Promote G · T · M NERR as a public resource for scientific information and a platform for communication
- Elevate student achievement in science

### Evaluating Efficacy of Field Studies for Increasing Environmental Literacy

Six questions based on estuarine literacy principles, administered to two high school groups:

- ❖ Field study participants (86 respondents)
- ❖ Non field study participants (428 respondents)

Literacy Question	Field study participants % correct answer	Non field study participants % correct answer	$\chi^2$	df	p-value	FS and NFS groups significantly different?
Q1	78.6%	51.1%	21.53	1	<.0001	Y
Q2	77.6%	57.7%	11.80	1	=.0006	Y
Q3	84.7%	64.3%	13.47	1	=.0002	Y
Q4	81.2%	69.3%	4.87	1	=.0273	Y
Q5	61.2%	43.7%	8.74	1	=.0031	Y
Q6	60.7%	51.1%	2.61	1	=.1062	N



### Field Studies

- Macro Estuarine Fauna Biodiversity Study
- Micro Estuarine Biodiversity Study
- Coastal Geomorphic Study – beach and sand dune
- Beach Conservation Clean-up and Refuse Inventory

- ❖ Characterize study site
- ❖ Collect abiotic data
- ❖ Follow data collection protocol
  - seine, tow, sieve as designed
  - distinguish and key out individuals
  - count and catalog
  - locate defined origin points and replicate a transect study line
  - quantitatively survey elevation
  - qualitatively describe substrate
  - share, organize and enter data into spreadsheet

