



# Giacomini Wetlands High School Education Programs



## Pacific Coast Science and Learning Center Summer High School Education Programs

*focus on*

### Giacomini Wetlands Science and Ecology

**Program Goals:** To give local San Francisco Bay Area youth the opportunity to learn about marine science and environmental conservation in a 1-2 week immersion program at Point Reyes National Seashore. Students learn about the natural resources at PRNS and the scientific methods used to assess them.

- This program was specially designed for multiethnic and diverse Bay Area high school students from low to middle-income backgrounds.
- A total of 20 students and 5 leaders lived, learned and worked at PRNS for three weeks in summer 2009.

- Jessica Luo and Leslie Adler-Ivanbrook developed a pilot 5-day program on Giacomini wetlands ecology.
- Students learned about shifts in plant communities, water quality, and bird populations in Giacomini wetlands since the restoration.
- They learned how to diagram cross-sections of streams, measure water flow, and monitor for fish.
- Students also assisted with ongoing habitat restoration work at Giacomini by removing invasive plants.
- Lastly, students synthesized their learning by creating ecosystem connection diagrams and creative writing.

**Next Steps:** PCSLC is developing the summer program into high school teacher resources for classrooms. We will be hosting teacher trainings in Spring, 2010.

**Contact:** Jessica Luo, Ocean Education Coordinator, [jessica\\_luo@partner.nps.gov](mailto:jessica_luo@partner.nps.gov), (415) 464-5132



**Photo captions (clockwise, a-k):** (a) Students at Lagunitas creek obtaining a stream cross-section profile. They stretched meter tape between the two stream banks, then using a stadia rod to measure the water height and the distance between the stream bed and the bank. (b) Nachi Conde-Farley checks a fish identification sheet as he prepares to identify fish after seining a portion of Fish Hatchery Creek. (c) Kayla Riley and Kevin Yu from Oakland await instructions for invasive mustard, thistle and radish removal. (d) Band Ly from San Francisco thigh deep in mud as he runs a seine through Fish Hatchery Creek. (e) Ana Morales from San Francisco with volunteer Rick Johnson using a parabolic microphone to listen to bird sounds. (f) Fishery biologist Mike Reichmuth working with students to identify species that they collected. (g) Wetlands biotech Amelia Ryan explaining to students how to conduct a vegetation transect. (h) Crissy Field Center students in waders gather with their leaders and instructors for a group photo after measuring the cross section of Lagunitas creek. (i) Students gather around after the bird identification activity. (j) Da'leah Randall of San Francisco measures water flow using the tried and true lemon method. (k) Jenny Yu of San Francisco in waders at Lagunitas creek.

