

Biodiversity Coastal Ecosystem Education Program:

A Pilot Program to Teach about Biodiversity and Species Habitats through Hands-On Student Projects

The [Pacific Education Institute](#) undertook this pilot program in 2009 to teach about biodiversity and species habitats through hands-on student projects with funding from the Washington Biodiversity Council. They trained teachers, project mentors, and field experts to guide student projects about biological diversity along Washington's southern coast.

The program developed straightforward and usable protocols and tools that focused on the schoolyard, enabling educators to engage students in local, do-able, and highly relevant field studies (middle school) and culminating projects (high school).

Since the pilot year, PEI has reached additional educators and students in Grays Harbor, Thurston, and Lewis Counties. They also had national impact, training educators at the [Association of Fish and Wildlife Agencies'](#) Conservation Education Strategy Training Course, held in Nebraska.

Key Accomplishments

- **Developed a new tool**, the [Schoolyard Biodiversity Investigation](#), which includes an educator guide and four components:
 - A student exercise for defining biodiversity and its importance
 - A student exercise to map their school's grounds
 - An in-class activity to prepare for habitat study
 - Student-run habitat and wildlife surveys.
- **Trained 37 educators** (18 in-service and 19 pre-service teachers) to lead biodiversity field investigations and guide student projects.
 - Plus an **additional 87 educators** since the pilot year.
- **Guided 300 middle school students** to complete hands-on projects that enhanced their understanding of biological diversity.
 - Plus an **additional 387 students** since the pilot year.
- **Facilitated student showcases and workshops**, reaching parents, community members, and students.
- **Led 19 high school seniors** in biodiversity-related culminating projects.
- **Trained 17 community professionals** to mentor senior culminating projects.
- **Fostered a partner network** of community agencies and organizations to mentor future student projects.
- **Increased student participation and engagement** in science, math, technology, and interdisciplinary learning.
- **Increased students' awareness** of and exposure to natural resources career paths.

Lessons Learned

- **The term biodiversity is still new to some.** Any program or lesson that involves the term biodiversity will benefit from an initial discussion about what it means.
- **Make field investigations attainable.** Activities close to home (e.g., in the schoolyard) appeal to teachers and principals who are coping with limited resources. Similarly, concern about printing costs can be met by students sharing data collection packets.
- **Educators welcome partnerships that help them meet requirements.** Pacific Education Institute has successfully shared the Schoolyard Biodiversity Investigation with five school districts beyond southwestern Washington, and it is being incorporated into the GreenSTEM (Science, Technology, Engineering, and Math) initiative that will include another eight school districts.