The Student Factor of the North Campus Open Space Restoration Project:

Ryan Clark, Lisa Stratton, Maddie Nolan, Jennifer King
CCBER fulfills UCSB’s mission of: education, research, and outreach through the stewardship and restoration of campus lands, and preservation and management of natural history collections.
Location, Location, Location
Student Internships at NCOS

Supported by

- Field skills and stewardship
- Up to 60 students per quarter

Research and Monitoring

- Water quality, Wildlife, Soil, Vegetation, …
- Driven by student interest
Student projects contributed to baseline research

For example:

- Seed bank study
- Soil type and quality by depth
- Distribution of native and exotic plants
- Burrow and cover board surveys
- Soil suitability for grassland restoration
- Groundwater elevation
- Public access and use survey
Soil Amendment Experiment - Maddie Nolan

- Pre-restoration study led by PhD student
- Do amendments improve soil and plant growth?
- Biochar, Gypsum, Mulch with & without fertilizer
- Inspired 10 undergrads who continued to work with CCBER
Larger Long-term Soil Amendment Experiment

- Effects of Biochar and Compost on Plant Growth and Carbon Sequestration
- Collaboration with UCSB Faculty (Jennifer King’s BioGeoChem Lab & Carla D’Antonio)
- So far: more than 12 students analyzing soil and monitoring plant growth
Pre-restoration Arthropod Survey

- 6 habitats (3 native, 3 exotic)
- 4 sampling methods
- 6 to 8 interns per quarter
- Tons of data!
Pre-restoration Arthropod Survey

- High diversity of parasitic Hymenoptera, including 3 tentatively new species
- Detritivore study involving 3 undergrads and grad student at UC Santa Cruz
- Post-restoration bee monitoring
Water Quality and Aquatic Arthropods

- Regular Monitoring of Dissolved Oxygen and Salinity
- Nutrients, oil and grease, suspended sediment
- Aquatic Arthropods: Collaboration with SB Audubon, Coal Oil Point Reserve, Faculty, Dozens of Students
Wildlife, Sediment Accretion, and more…

- **Wildlife:**
  - documenting habitat use with “trail cameras”
  - monthly bird surveys
  - coming soon: small mammal and herp surveys

- **Sediment accretion – feldspar plots**
- **Slough mouth & beach berm topography**
- **Carbon sequestration and Greenhouse gas exchange**
- **Community use of project site**
Kids In Nature Program

Supported by Coastal Conservancy

2 components:
- Environmental Education course for undergrads
- Local school field trips to reserves and restoration sites

First year at NCOS:
- 10 schools
- 32 classrooms
- 700 K-12 students
- 20 field trips
Students = A Key Factor in NCOS Success
Thank You!