Teaching U.S. Environmental History to STEM (and History) Majors at CSULB

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“Cognitive Constraints”
Establish a baseline: student goals & characteristics

Utilize specificity in scientific concepts for definitional purposes

Employ a range of disciplinary practices of historians
Use historical data to enhance understanding of current issues

Acknowledge that both disciplines (history and science) bring value to the field of EH

Exploit recognized high-impact pedagogical practices
Definitions: Deepening STEM students’ disciplinary knowledge through historical inquiry
Employ methods of historians

- Interrogate meaning of “conservation” and “natural”
- Introduce human society and agency into a narrative of “protecting Nature”
- Mark Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks*
Use historical data to enhance knowledge of current issues

Historical Coastal Wetlands of Los Angeles & Orange Counties - 1894

- Wilmington Lagoon: 3,450 acres
- Alamitos Bay: 2,400 acres
- Bolsa Bay: 2,300 acres
- Santa Ana River Marsh: 2,950 acres
- Newport Bay: 2,350 acres
- Long Beach
- Alamitos Beach
- Los Alamitos
- South Gate River
- Bolsa Chica
- Westminster
What role does human activity play in reestablishing species?
Use high-impact practices: Collaborative Inquiry

- Field inquiry: Environmental Inequality
Use high-impact practices: Undergraduate Research

- Field Research: Environmental Planning
Use high-impact practices: Service Learning

Plastic Ingestion

Garbage at sea

The Great Pacific Garbage Patch resides within this slow-moving zone that allows floating debris to accumulate.

The patch’s precise size is not known, but some scientists estimate it to be twice the size of Texas.

To learn more about the Pacific Garbage Patch, go to:

- Project Kaisei Homepage: www.projectkaisei.org
- Scripps Seaplex Homepage: http://sio.ucsd.edu/Expeditions/Seaplex/
- NOAA Marine Debris Project Homepage: http://marine-debris.noaa.gov
Service Learning: FOLAR
Additional Service Learning sites
Service Learning Placements to suit career goals and skills
Benefits

- Appreciation of disciplinary methods
- Community engagement
- Reflective assignments ➔ self-awareness
- Closer alignment of outcomes
- Re-conceptualize EH as a field