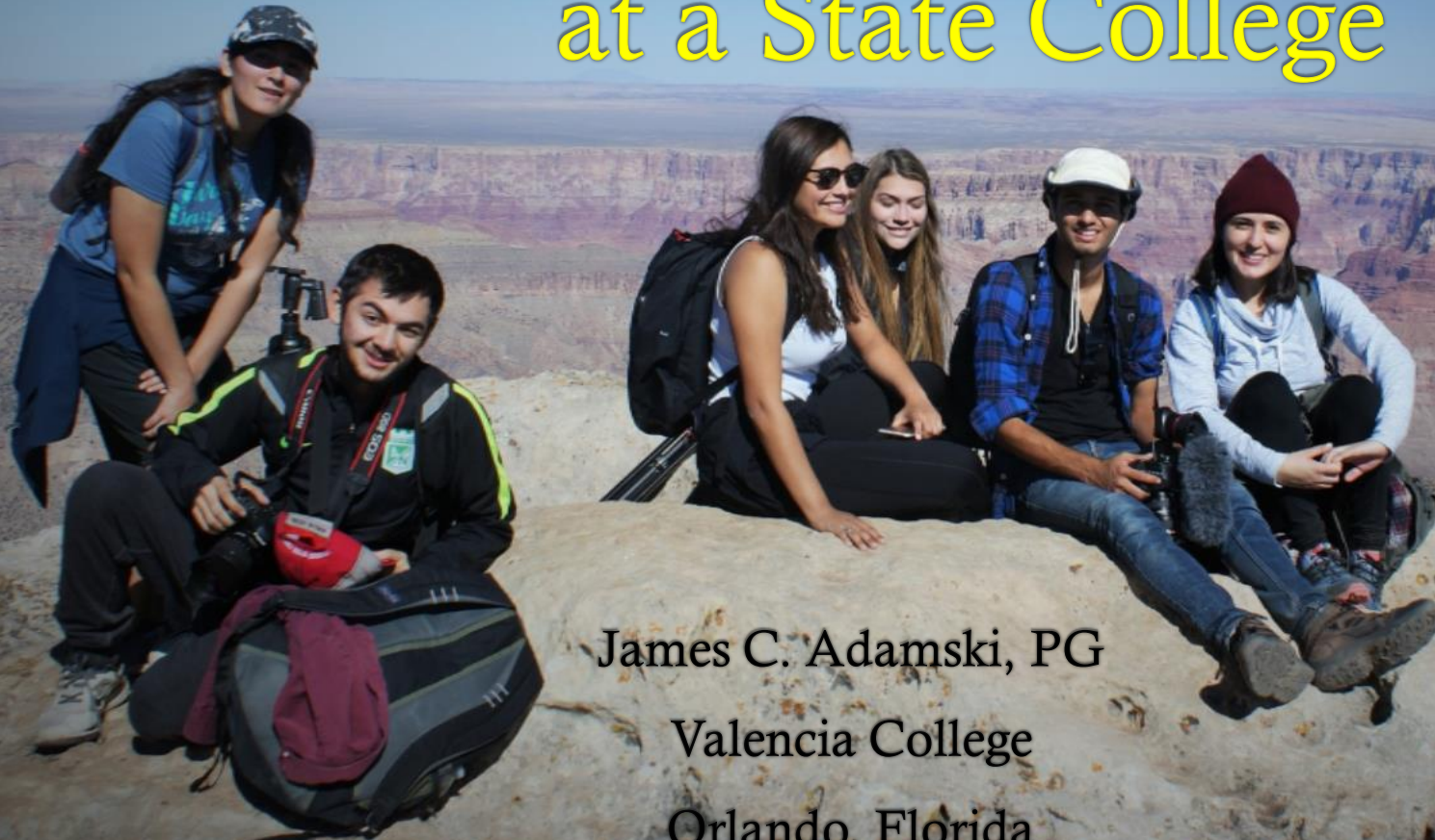


Creating Earth-Science Learning Opportunities Outside the Classroom at a State College



James C. Adamski, PG

Valencia College

Orlando, Florida

Background—Valencia College

- ◆ Six campuses in central Florida.
- ◆ Total enrollment is about 60,000, with nearly 33,000 at East Campus.

Graduates by Degree

- ◆ Bachelor in Science 0.7%
- ◆ Associate in Arts 49.3%
- ◆ Associate in Science 10.9%
- ◆ Technical Certificate 38%

The vast majority of students are non-science majors. They need 6 hrs in non-lab science courses to meet general education requirements.

East Campus Demographics (2013)

- ◆ Roughly 52% female; 48% male
- ◆ African American 14%
- ◆ Hispanic 31%
- ◆ White 38%
- ◆ Other ethnicity or unknown 17%
- ◆ Half of students 19 – 24 years old
- ◆ Large number of dual-enrolled, returning, and other non-traditional students

Objectives

- ◆ Raise awareness of environmental issues among students (staff and faculty).
- ◆ Help create scientifically literate citizens!
- ◆ Increase enjoyment of science among non-majors
- ◆ Motivate students to major in the Earth sciences

Methods

Engage and educate students (staff and faculty) outside the classroom

- ◊ Valencia Earth Studies Association (VESA), an environmental club open to all students. No fees or requirements.
- ◊ Earth Day event
- ◊ Natural history “museum”
- ◊ Native-plant gardens
- ◊ Field trips
- ◊ Presentations by guest speakers

VESA

Started in Fall 2011.

No fees or requirements for joining.

Supported by Student Development (student activities fees).

Average about 15 – 20 members/semester.



Earth Day

Started in April 2012.

Last year, 28 environmental organizations participated.

Audubon Center for Birds of Prey, Central Florida Zoo, Florida Fossil Hunters, various animal rescue and rehab, state parks, and more.

Music majors and faculty provided entertainment

More than 400 students, staff, and faculty attended.



Earth Day 2018



Museum and Native-Plant Gardens

Started in 2017 with a \$5,000 grant

Five glass display cases.

42-in touch-screen kiosk.

Maps and photos

More than 200 native trees and shrubs.

Volunteers by faculty, staff, and students



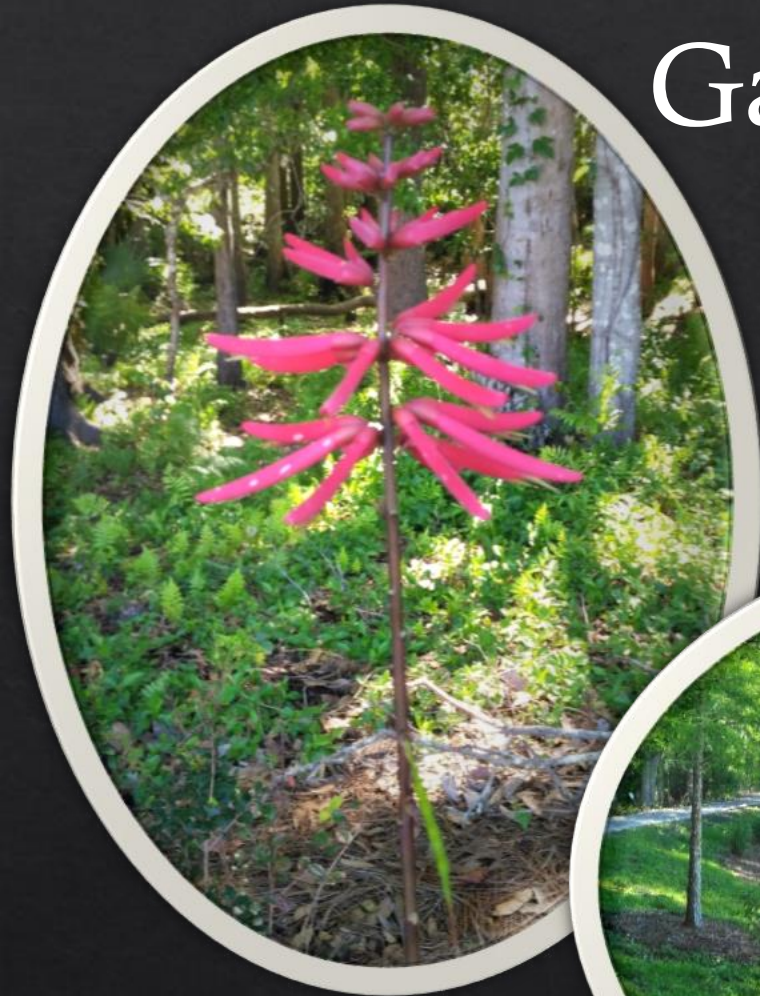
Museum



Native-Plant Gardens



Native-Plant Gardens



Native-Plant Gardens



Field Trips



Evolution of Field Trips

Day and weekend trips

Extended trips up to a week

Student costs are kept low

Lockheed Martin Endowed Chair in Science

Students are expected to give a presentation to the Science Dept after the trip.

Destinations include state parks, Great Smoky Mountains NP, Rocky Mountain NP, and the Colorado Plateau



Our lodging in Kanab, Utah

Central Florida in 2012

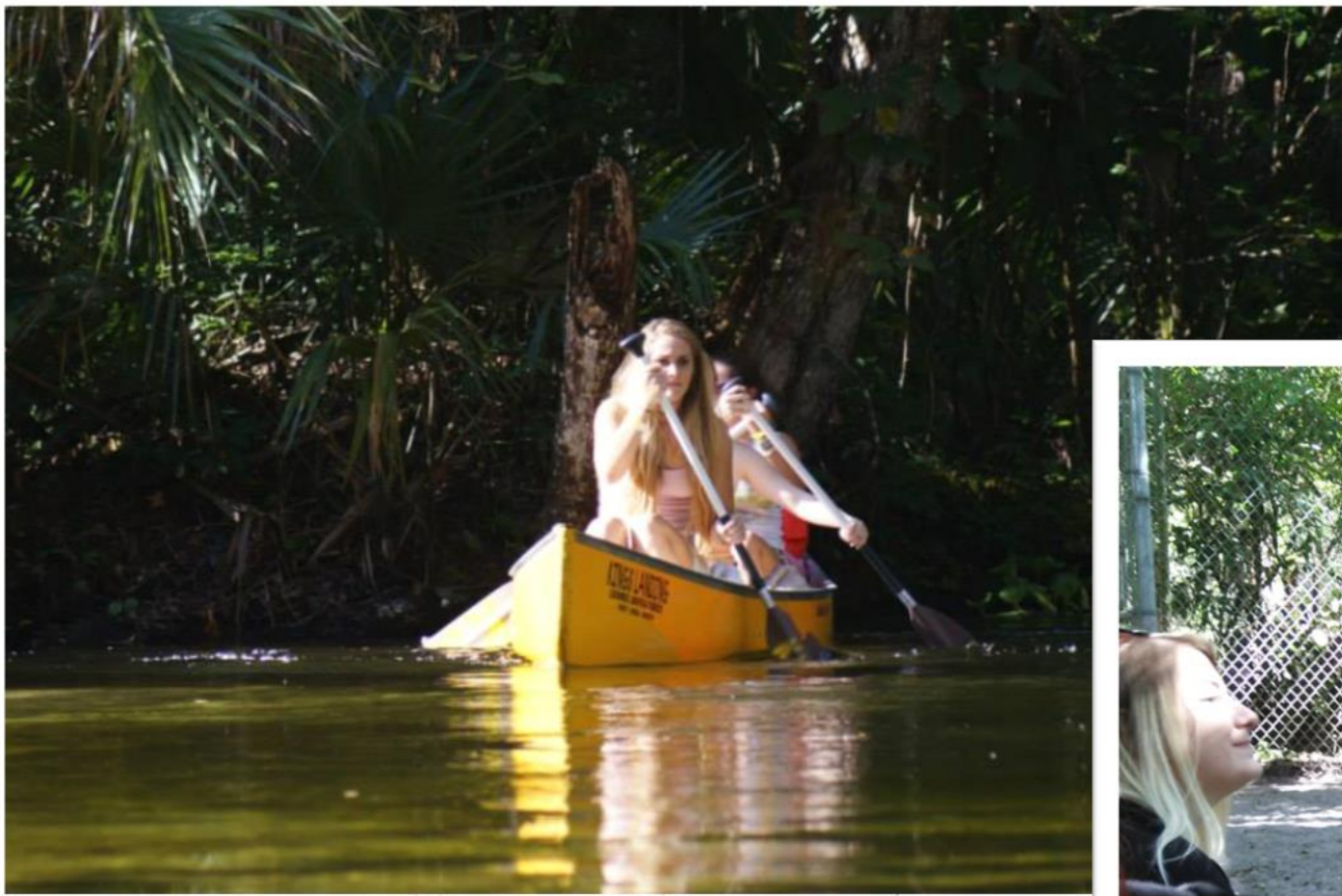


Camping in the Panhandle
2013



Bigger and Greater in 2014





Back to Florida in 2015





Another Great Smoky trip in 2016



Our Grand Year in 2017



We toured Zion
National Park



The world in 360!





Please do not feed the squirrels Goldfish crackers!







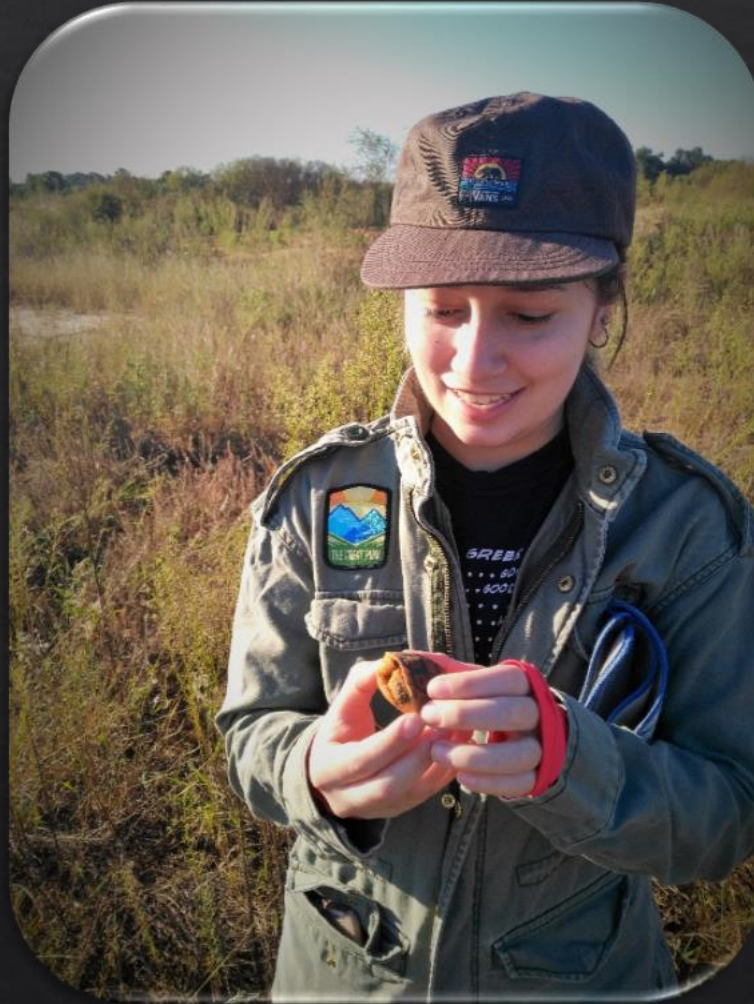
Bryce Canyon







Service Learning VESA Rescuing Gopher Tortoises!

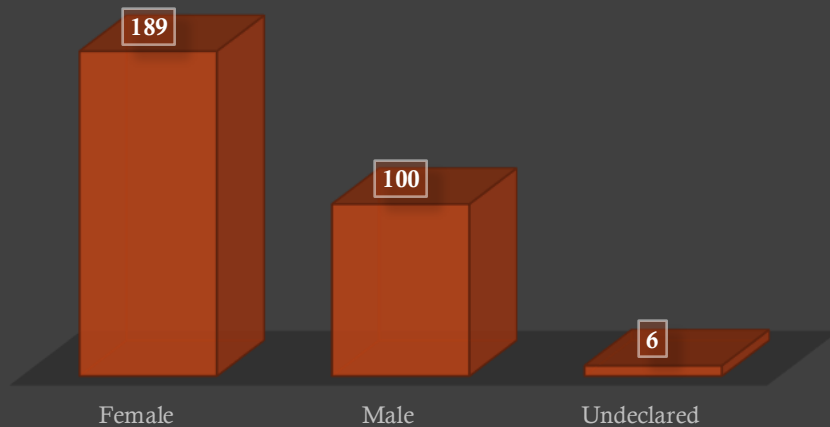


Is it all worth it?

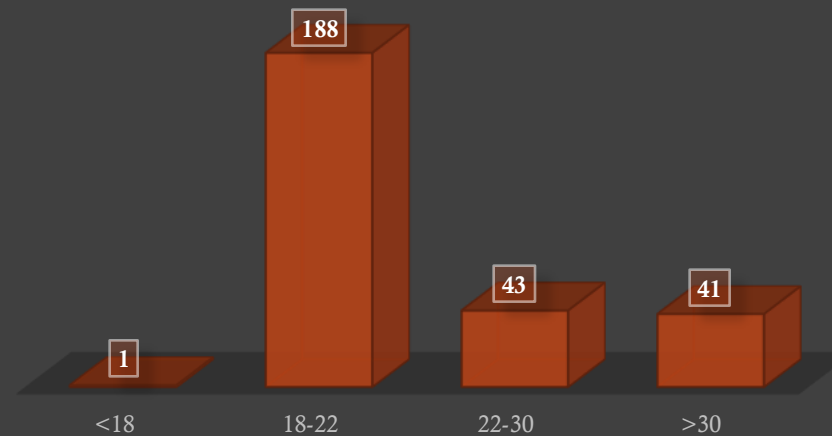


Results from Earth Day Survey on Climate Change

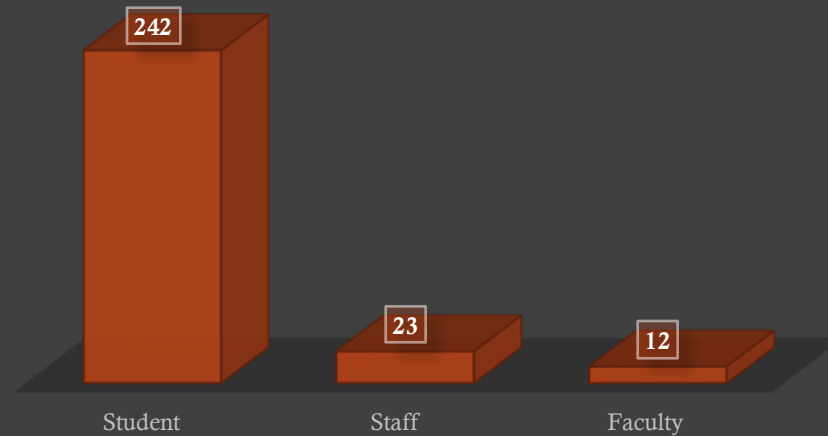
GENDER



AGE

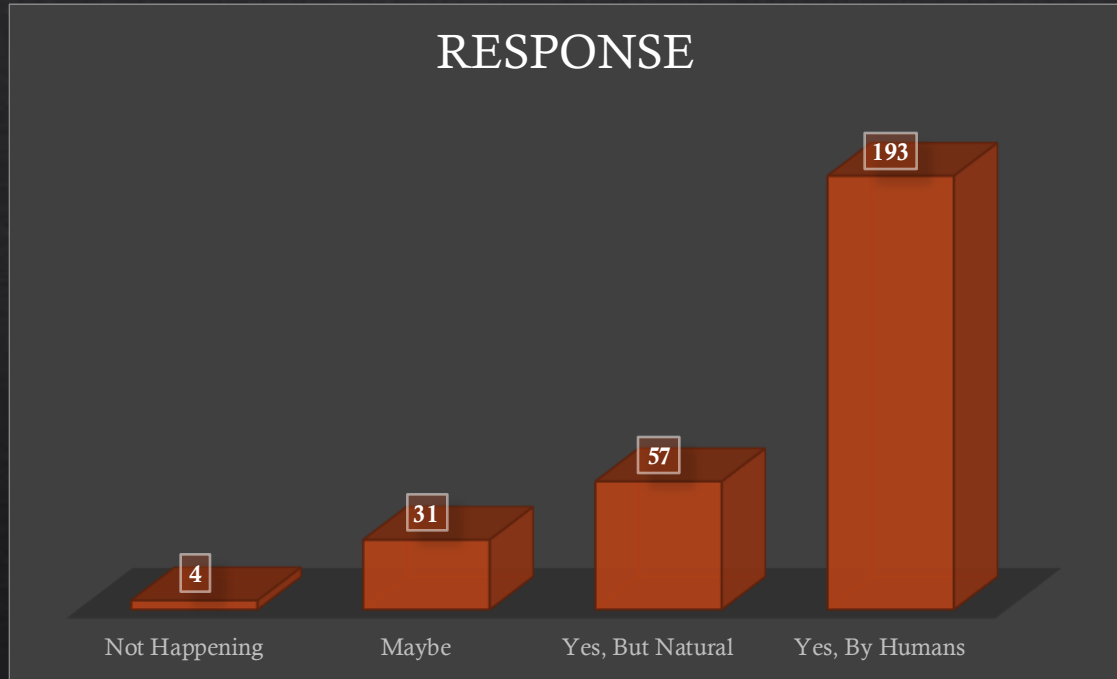


STATUS

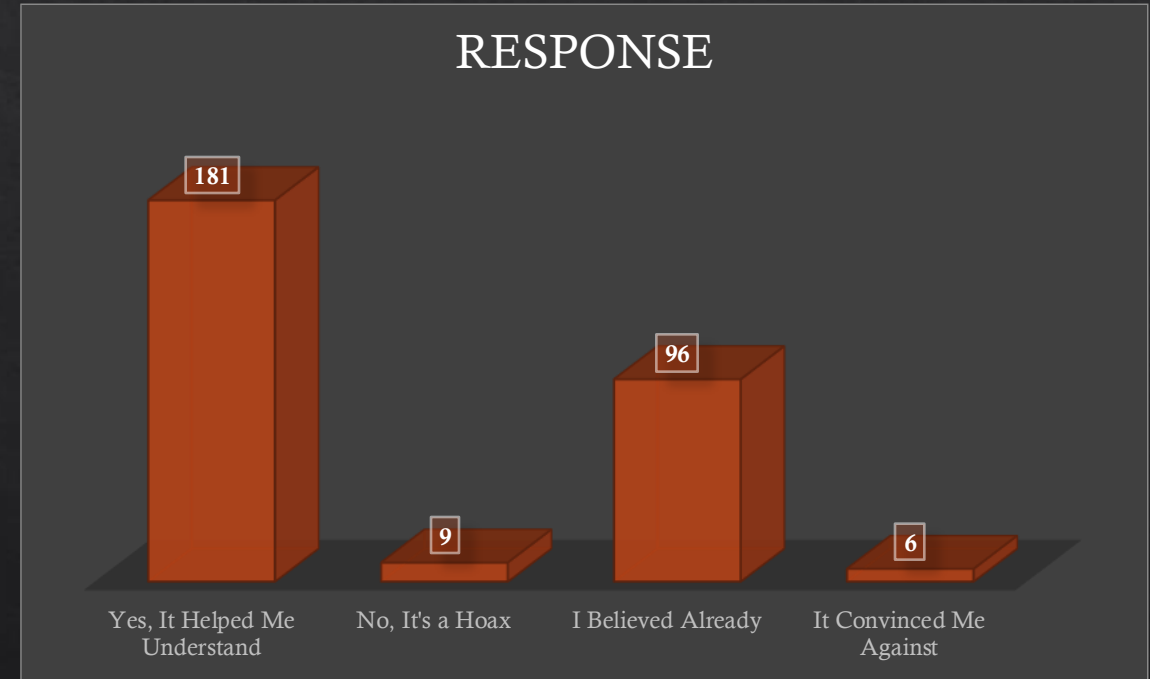


Results from Earth Day Survey on Climate Change

Before the event, I thought climate change was...



Did this event change your mind?



Conclusions

- ◆ Valencia College has a diverse student population, most of whom have little exposure to geology and other natural sciences.
- ◆ Few students major in science or take classes in geology.
- ◆ A multi-prong approach is used to educate and engage students outside the classroom.
- ◆ These activities seem to raise awareness of issues like climate change.
- ◆ Further study is needed to document effectiveness.

Acknowledgments

- ◊ Lockheed Martin
- ◊ Valencia Foundation and the Endowed Chairs Program
- ◊ Jennifer Snyder, Dean of the Science Department, East Campus
- ◊ Student Development, Valencia College East Campus
- ◊ The students!

www.facebook.com/clubvesa

@valencioclubvesa on Instagram

<https://www.youtube.com/watch?v=k6SAisKyJvI>