

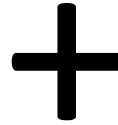
Citizen science for all ages: How students and youth have been tracking ecosystem change on Acadia's Schoodic Peninsula

Richard Evan Feldman

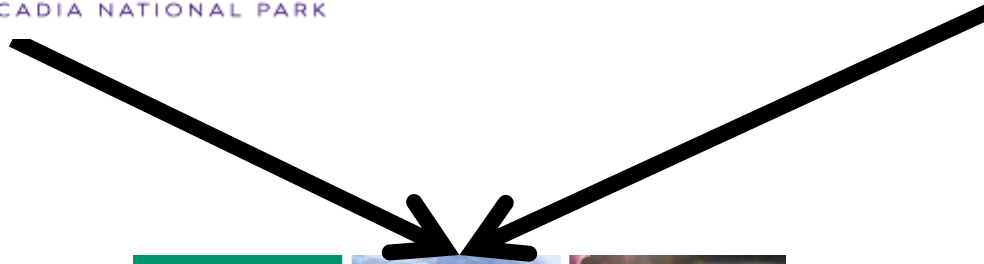




SCHOODIC
INSTITUTE
AT ACADIA NATIONAL PARK



EARTHWATCH[®]
INSTITUTE

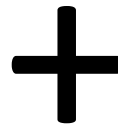


CLIMATE CHANGE: SEA TO TREES AT ACADIA NATIONAL PARK



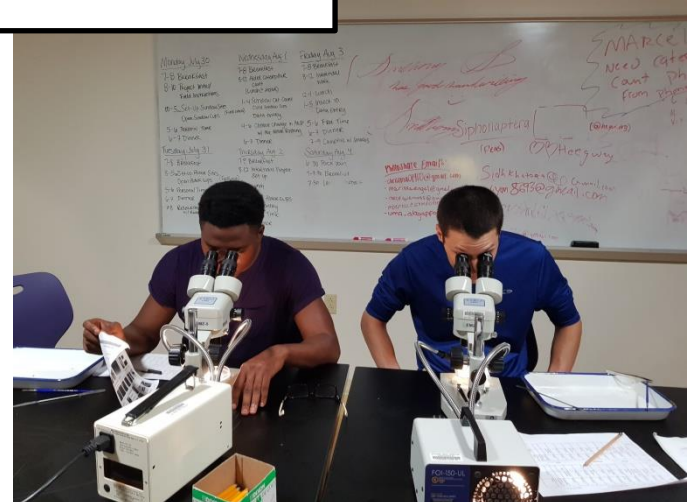


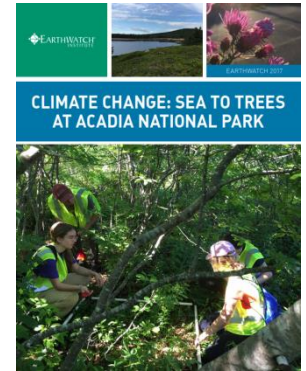
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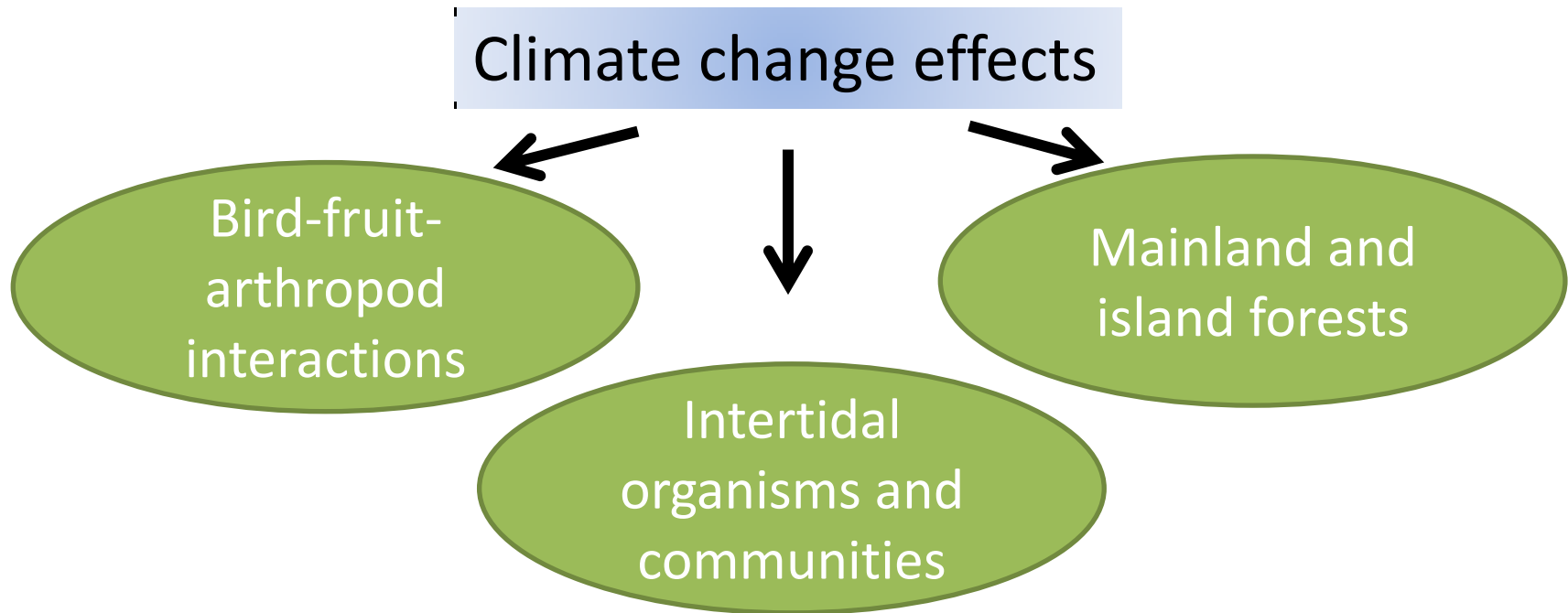
EARTHWATCH
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Investigating climate change impacts
in Acadia National Park: ecological
mismatches, ocean acidification, and
forest response



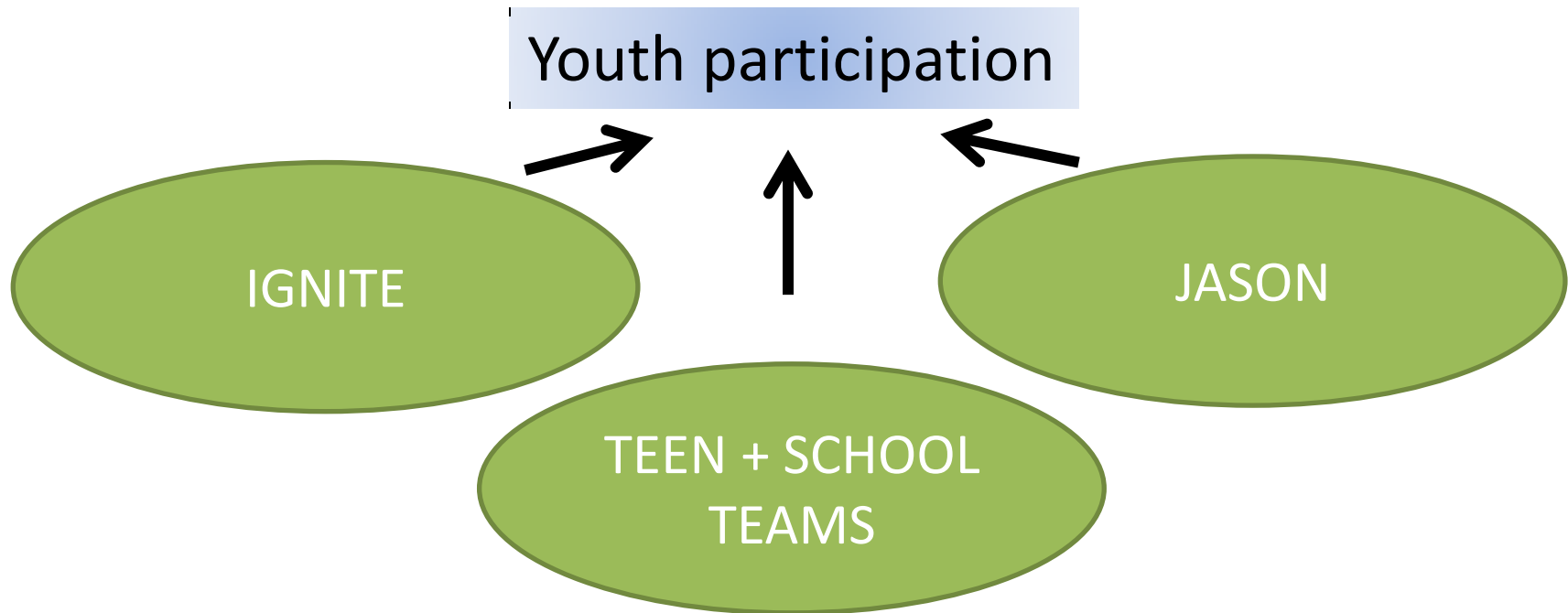


Research with citizen scientists





Research with citizen scientists

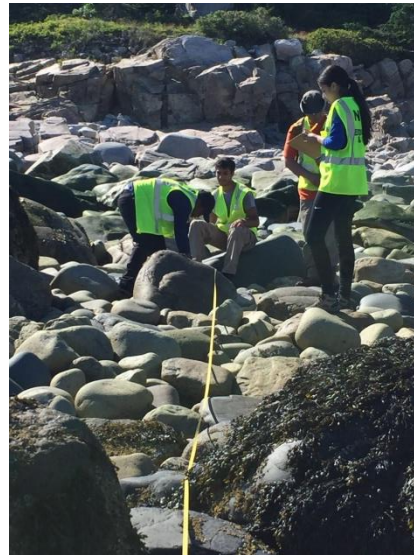




Ignite program

Dr. John Cigliano
Cedar Crest College
Allentown, PA

- pH + temperature → rocky intertidal composition, structure, and function
- 13 sites w/ gridded quadrats
- 5 years, 6 teams, 50 citizen scientists



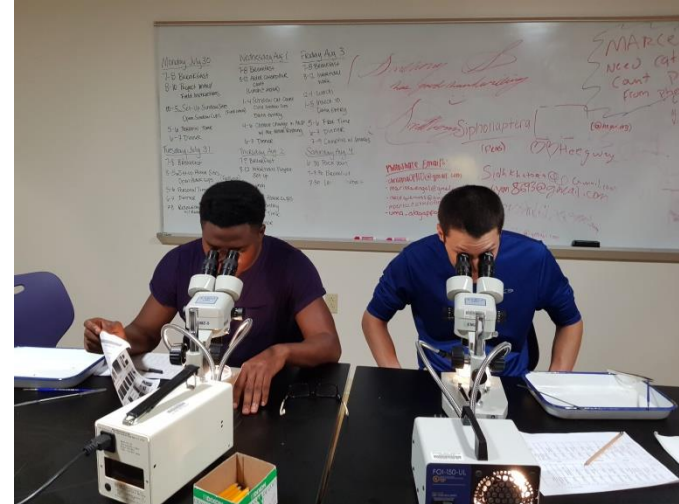
Ignite programs

Durfee Foundation

- 10th and 11th grade student fellows
- Los Angeles
- Two week programs
- To help students become scientifically literate and confident in their investigation of the natural world
- Expand potential and stimulate curiosity in science and technology

Ignite Participation

- 5 years
- 6 teams
- 50 youth citizen scientists



Ignite programs

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Program outcomes

- 68% female; 32% male
- 41% Hispanic/Latino; 47% first in family to attend college
- 55% from Title 1 high schools in LA County; 78% of Ignite high schools are in low to middle-income neighborhoods
- Average high school graduation rate of Ignite alums is 100% (vs. average graduation rate of Ignite schools 71%)
- 78% of alumni reported becoming more interested in science outside of the classroom; over 50% went on to major in science; 32% took science courses in college.

Ignite programs

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2016

- Teacher program
- 10 Los Angeles high school science teachers



Jason program



- Middle school students from Jason curriculum schools
- “Argonauts” participate in real science and exploration; long-term and impactful research
- Connect field experience to climate change curriculum
- Blog about experiences

Participation

- 2016: 4 students/4 teachers
- 2017: 4 students/4 teachers

Teen + school teams

- Rising sophomores, juniors, seniors
- Nation-wide
- Student fellowship support
- Earthwatch facilitator

→ Girls-in-Science Fellowship Program



Teen + school teams

Teen teams

- 2015: 6 students
- 2017: 15 students
- 2018: 7 students

School teams, 2016

Woodstown, NJ

- X students

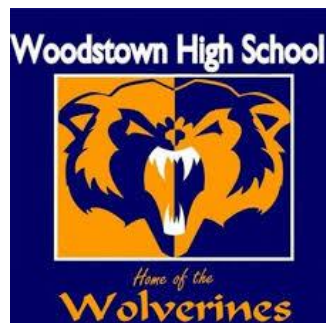
San Clemente & Dana Point, CA

- 9 students

Long-term monitoring
of fruit and arthropod
biomass through fall

Recording extent of
Green Crab invasion

Measuring algal
growth in
experimentally
warmed intertidal
habitats



Questions?

