

# Environmental & Community Impacts by Teen-Adult Partnerships

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## Project Motivation & Goals

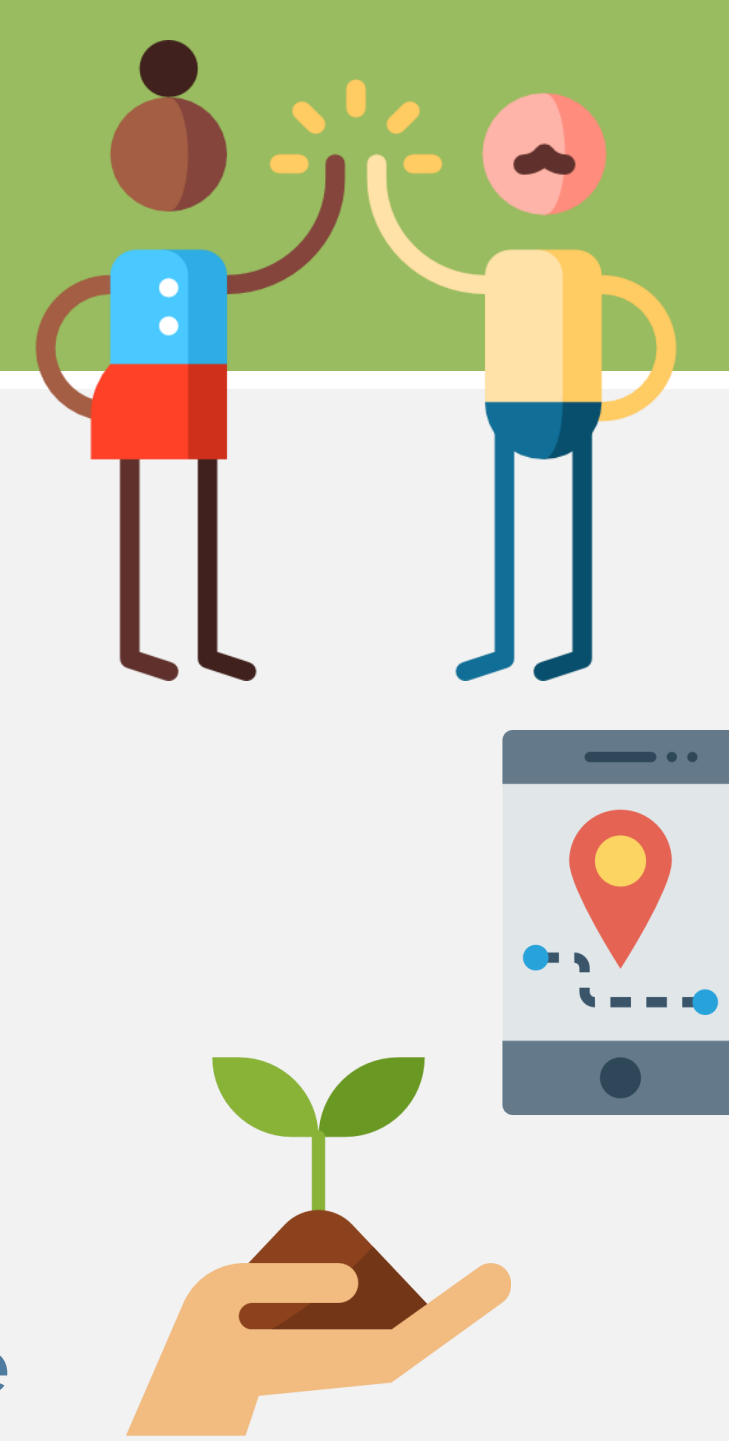
Empowering youth and adults towards **environmental action** is vital for:

- Student achievement
- Developing informed & engaged citizens
- Expanding capacity to address environmental issues

- ✓ Substantial research on impacts of environmental action programs (EAP) on student achievement & citizenship
- ✗ Little is known on how EAP result in environmental quality improvements

**Our Goal:** To assess collective environmental & community impact of conservation projects carried out by teen-adult volunteer partnerships

## UConn's Natural Resources Conservation Academy



- Place-based, environmental action programs for teens, adults & teachers
- Teen & adult volunteer teams formed
- Trained in conservation science & technology
- Teams identify & address a local conservation issue (projects tailored to individual circumstances & community need)
- Participants share projects at regional conference

## Environmental Impacts



185 unique properties assessed

- Baseline fauna/flora data, water quality, restoration success

21 unique areas restored or with new habitat

- 963 invasive plants or diseased trees removed
- 782 native plants planted
- 25 other habitat features created (e.g., brush piles, LWD, nesting/roosting structures, rain gardens)

18 projects contributed to long-term programs

- Institute for Bird Populations MAPS & CT Bird Atlas Project
- CT Riffle Bioassessment by Volunteers
- Trout Unlimited Salmon Kill Restoration Project
- Project Limulus
- CT Culvert Assessment Program

24 projects made meaningful scientific contributions

- One published in National High School Journal of Science



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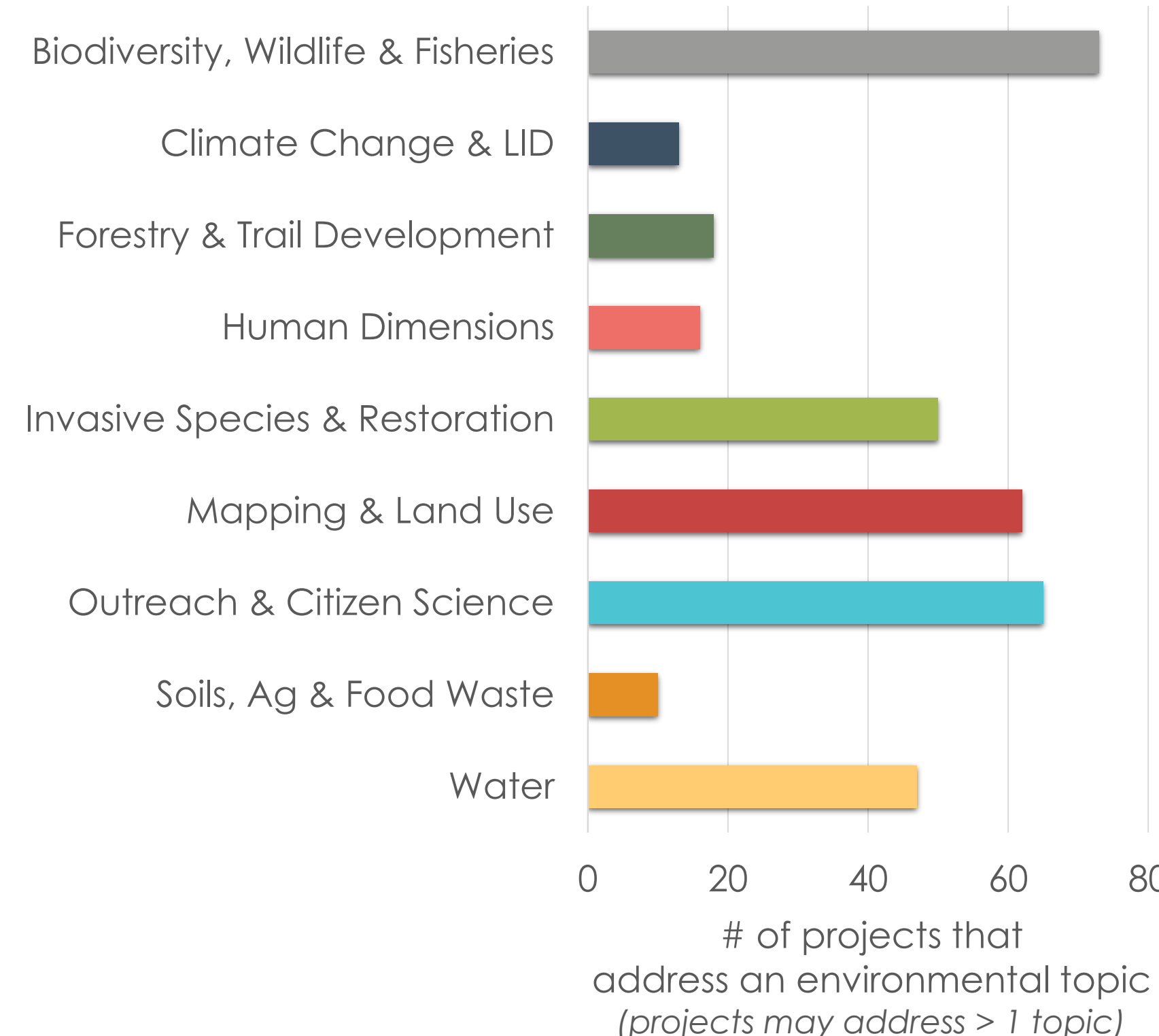
NRCA's CTP is funded by a grant (AISL-1612650) from the National Science Foundation Advancing Informal STEM Learning program. NRCA's CAP is funded by UConn and a number of charitable organizations.

## Quantifying Impact

- Assessed impact of **167** projects carried out by **308** teens and adults participating in two UConn NRCA programs (CAP ● & CTP ●)

The challenge:

Develop a systematic protocol to quantify metrics from **diverse** conservation efforts



- Reviewed **231** project artifacts, including:

- 163 participant conference posters
- 68 project products, news articles & awards (participant self-reported)

- Evaluated artifacts for:

- Environmental impacts
- Community assets or resources
- Social capital gained
- Continued participation in conservation efforts

**Legend: Program Projects by Color**

- Conservation Ambassador Program (CAP)
- Conservation Training Partnerships (CTP)
- Teacher Professional Learning (TPL)

## Community Assets & Resources

49 educational & community service events

- Workshops, trainings, removal parties, trail building

10 participant-developed programs

- Long-term vernal pool monitoring
- Citizen science bat house monitoring
- School composting
- Urban tree reuse program

17 proposed management plans

- Low Impact Development (LID) plans
- Municipal climate change mitigation plans

82 areas mapped

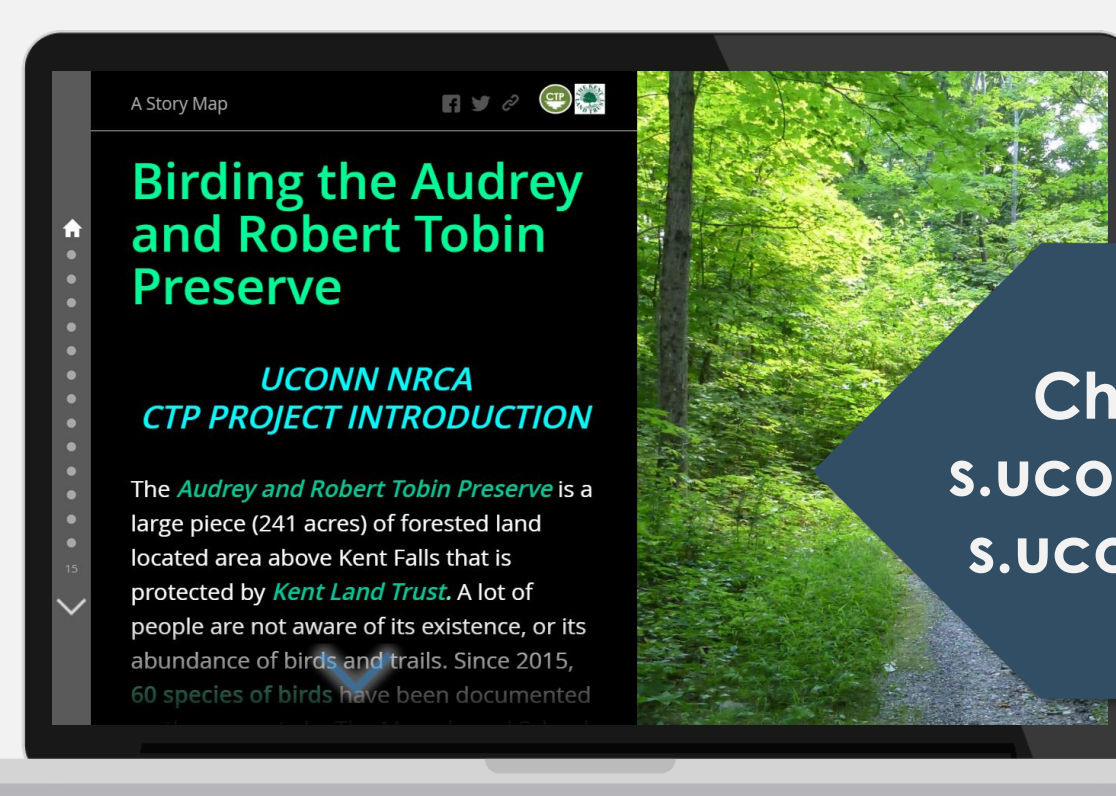
- trails or other natural resources

44 physical structures created

- Trails, signage, benches

71 products created

- Field keys
- Educational booklets
- Educational videos
- Trail maps
- Story maps



Check out products @ [s.uconn.edu/ctpproducts](http://s.uconn.edu/ctpproducts) & [s.uconn.edu/caproducts](http://s.uconn.edu/caproducts)

Distribution of participants & projects with examples featured in the pop-ups. The color of the dot indicates participants in different UConn NRCA programs. Learn more about NRCA projects on our interactive map @ [nrca.uconn.edu](http://nrca.uconn.edu)

## Social Capital Gained

233 unique teen-adult community partnerships

Engaged 2720 community volunteers

Participants received 43 notable recognitions

- Projects highlighted in press
- Awards

Products disseminated through 78 online or physical platforms

- Community websites, social media, local TV
- Libraries, businesses

## Next Directions

- Project artifacts provide a vital resource to quantify short-term environmental impacts and community benefits
- To assess long-term indicators, we will use a survey instrument to:
  - Gauge continued participation in conservation efforts
  - Measure environmental improvement (monitoring post-project)
  - Identify projects & partnerships characteristics that facilitate environmental improvement