The Use of Mobile Applications for Informal Science Learning in Parks

http://parkapps.kent.edu

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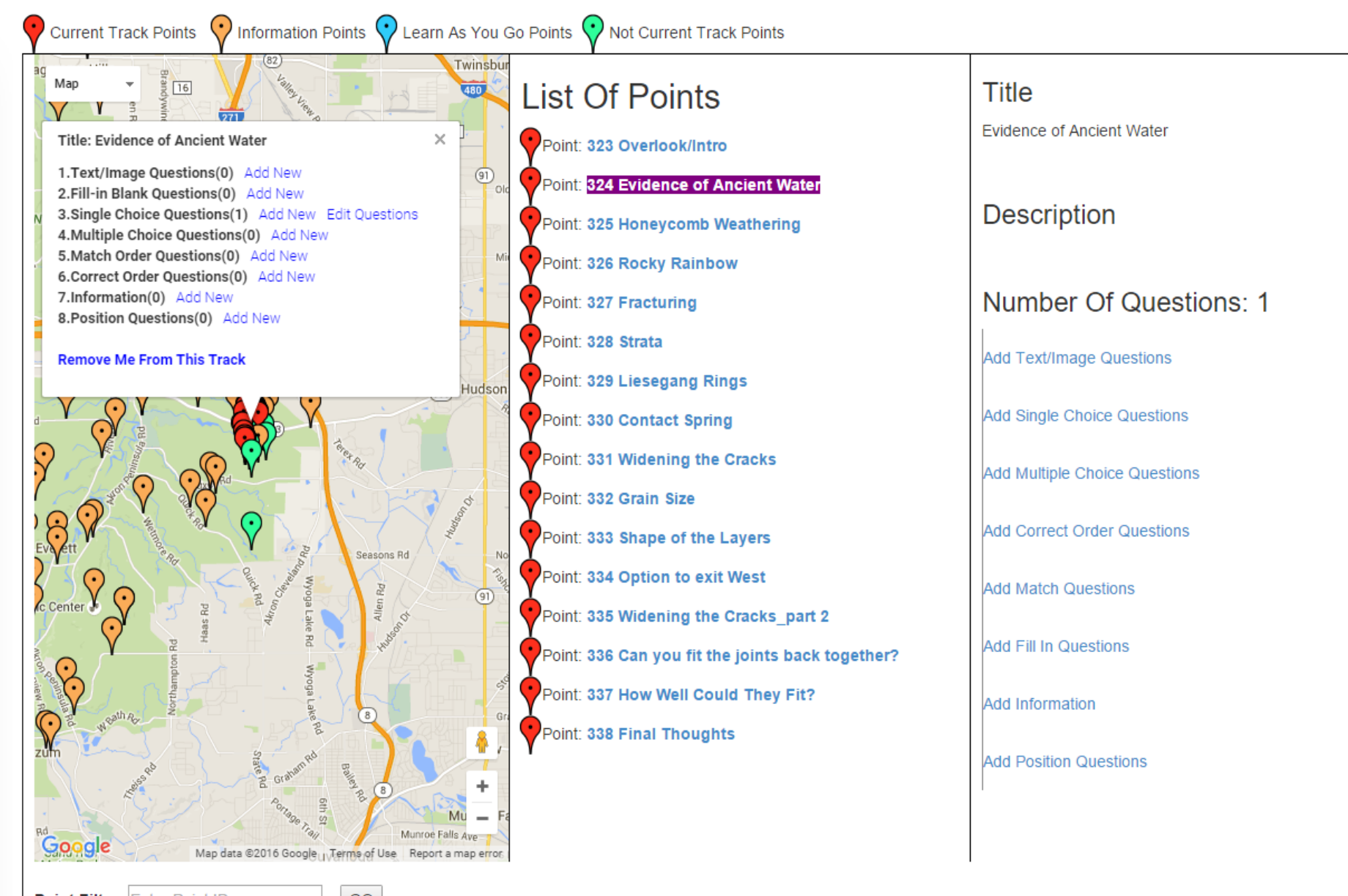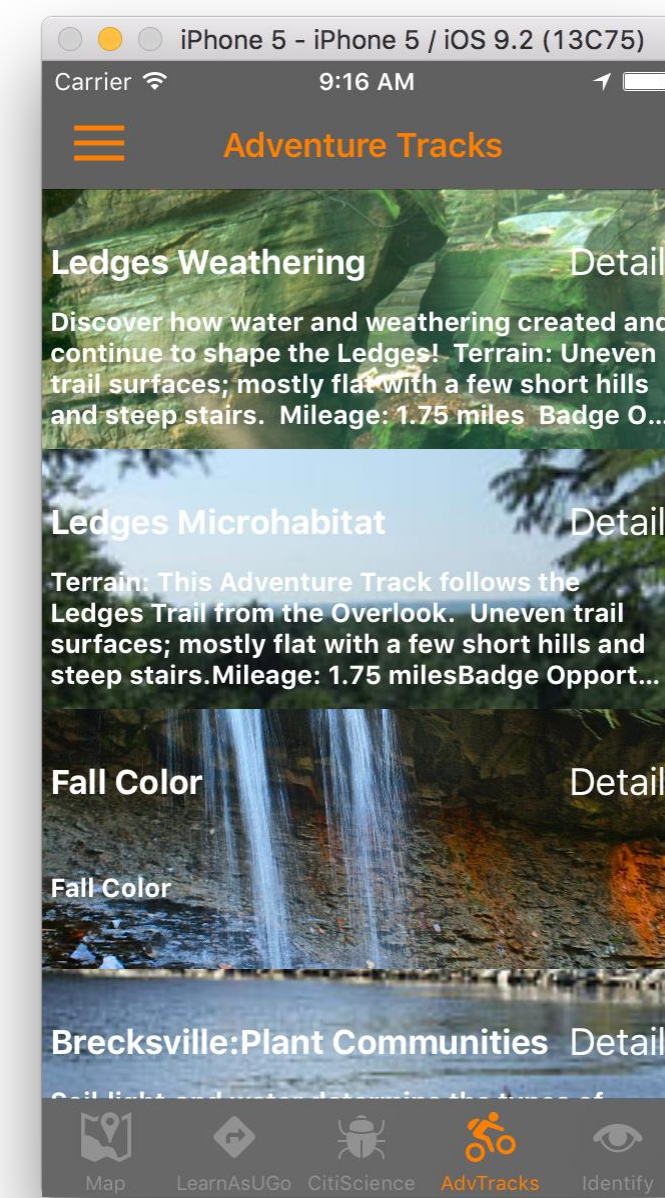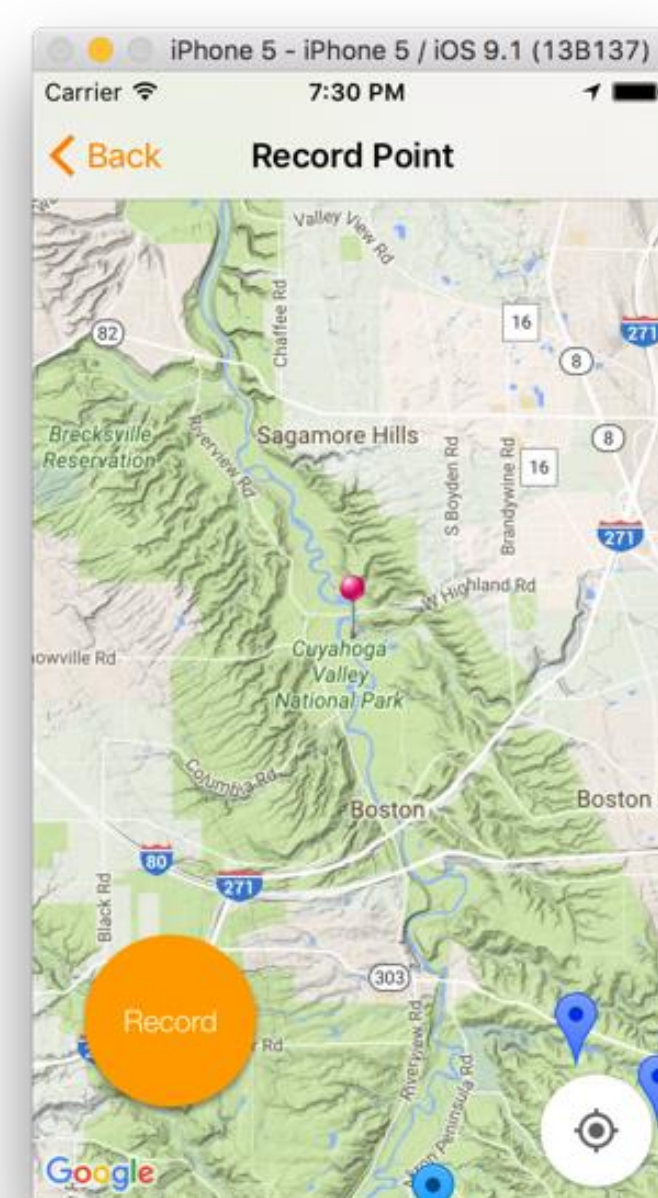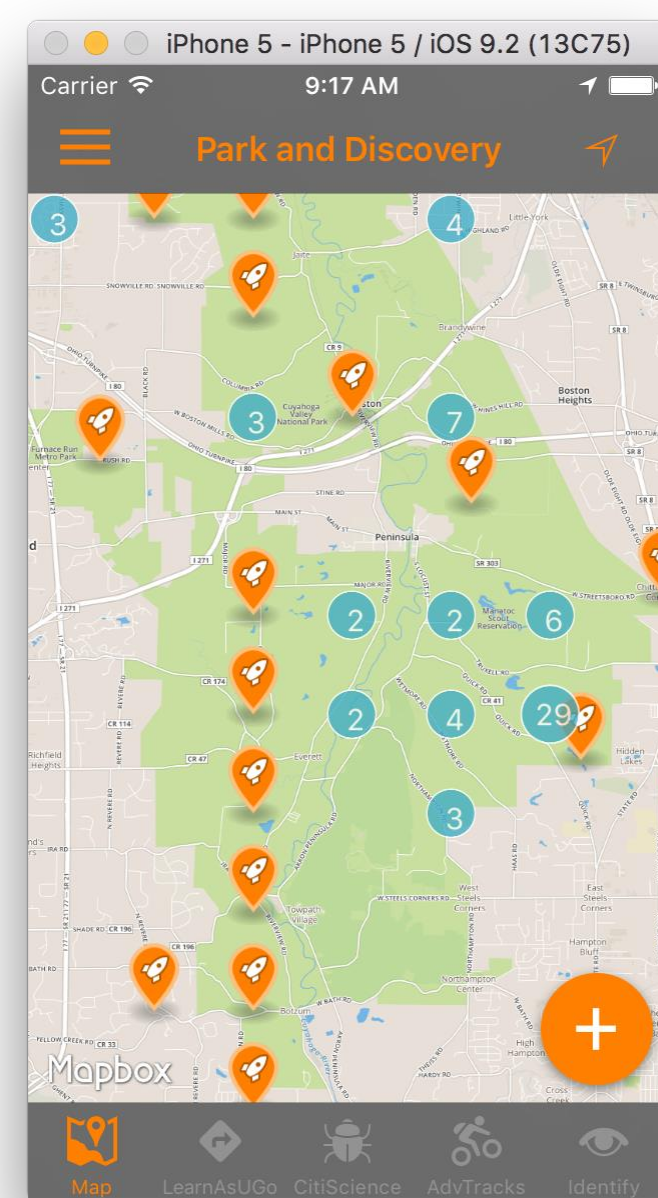Dr. A. Kratcoski [1, Co-PI]

Partners:
Kent State University[1]
Cuyahoga Valley National Park
Cleveland Metroparks[2]
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Overview: The objectives are to develop a mobile application to positively impact informal science learning in parks, to test the application in one of the nation's most visited national parks, to evaluate affective and cognitive outcomes, and to provide enough documentation to be able to sustain replication across parks and STEM content areas.

Audience: Users include: a) visitors to local, state and national parks; b) park personnel who are interested in learning more about park visitor habits; and c) scientists who want to collect data through park-based citizen science projects.

Research questions:
1. What is the feasibility of implementing a GPS-based, mobile learning application in a large National Park? (What are the associated outcomes that could inform future development and implementation?)
2. What impact, if any, does a GPS-based, mobile learning application have on informal science learning as understood within the Six Strands of Informal Science Learning?

Evaluation: Data is set to be collected starting in April, 2016.

Insights/Challenges: Map data are often in multiple formats/systems. GPS location accuracy needs special algorithms given the lack of WIFI and cell towers. Data collection in national parks requires special access through a lengthy process that goes beyond a university's IRB.