



Central Arizona – Phoenix Long-Term Ecological Research

CAP LTER

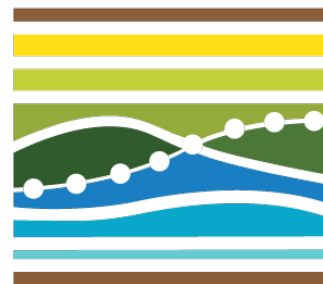
CAP

Becky Ball
Dan Childers

Arizona State University



LTER SCIENCE COUNCIL MEETING 2018
MADISON, WI

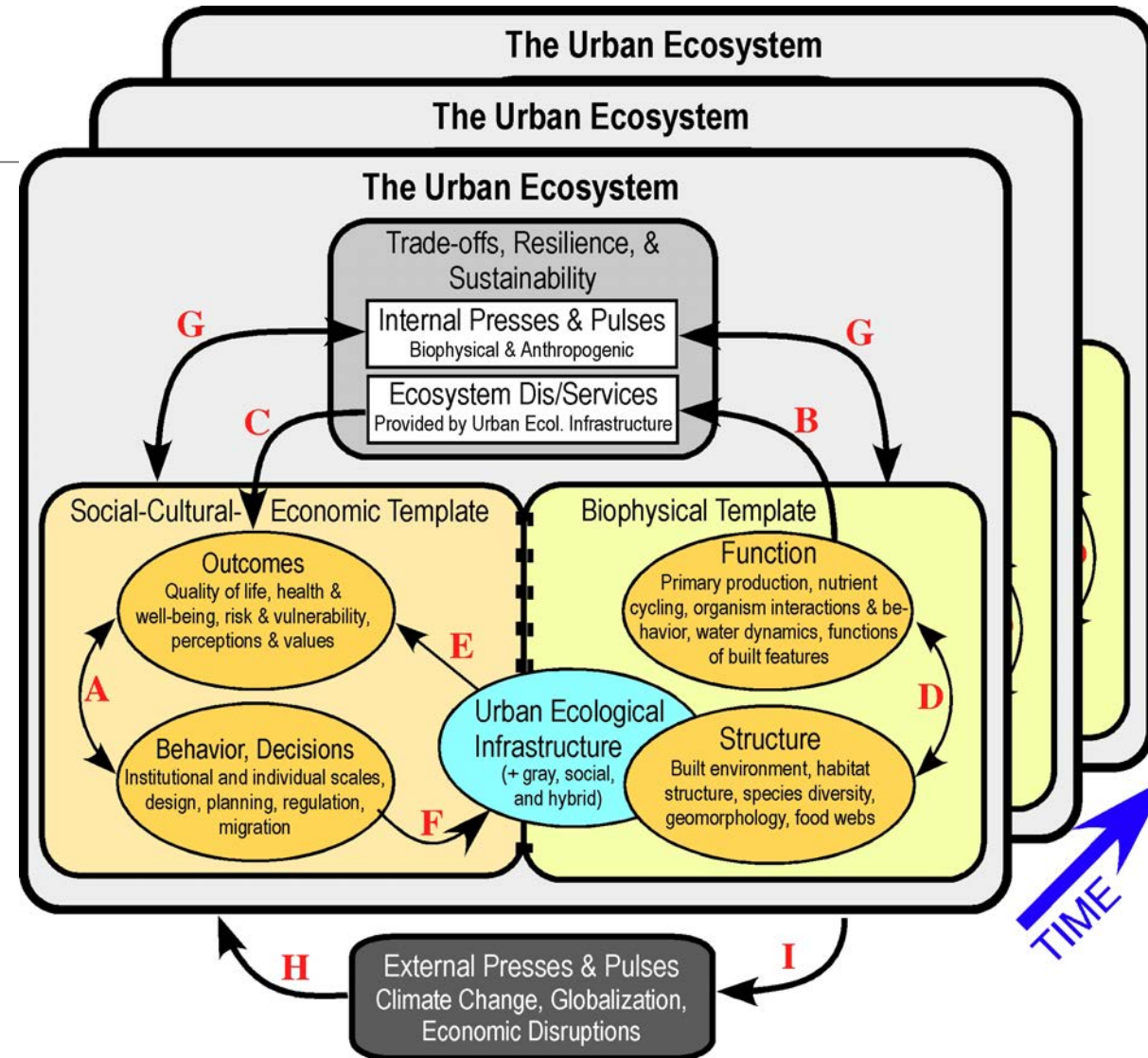


NATIONAL SCIENCE FOUNDATION

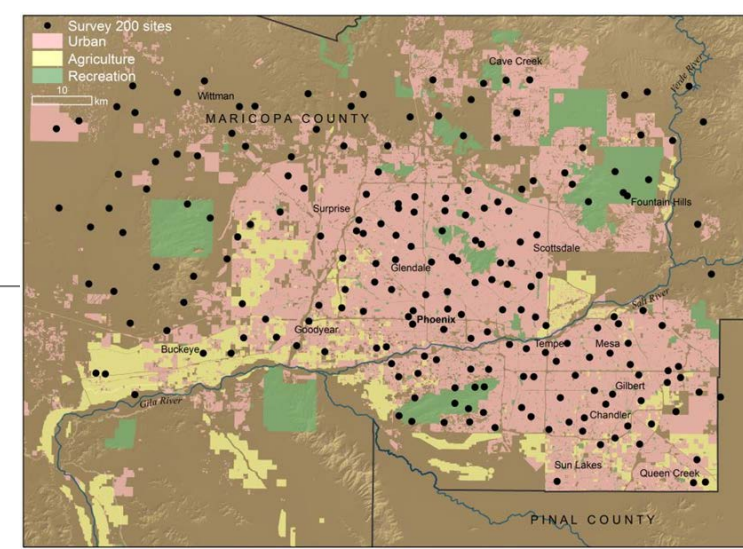
LTER NETWORK
LONG TERM ECOLOGICAL RESEARCH

Site News

1. Submitted our 2nd renewal proposal in 2 years.
2. Some minor tweaking to central conceptual framework.
3. Stronger focus on Urban Ecological Infrastructure (UEI).
4. Tighter integration and coordination of long-term datasets and experiments with each other and with other CAP research.
5. Completed our 4th Phoenix Area Social Survey (PASS).
6. Just started a new charismatic megafauna camera trap study.
7. New BACI-type UEI urban design experiments.
8. Expanded work on sustainability scenarios and futures, including hiring a new postdoc.



Organic Matter - Who/How



Role of OM:

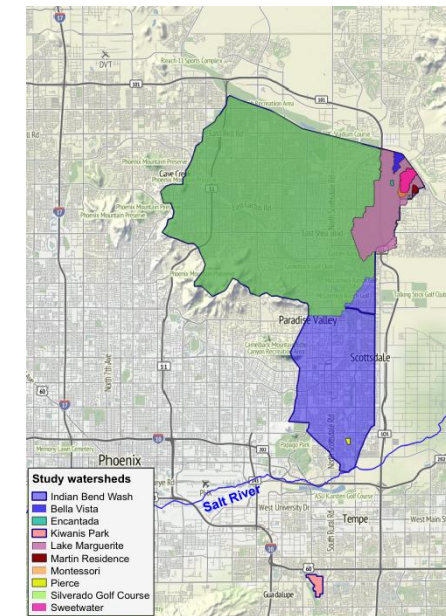
Aridland OM dynamics
urbanization alters inputs/fluxes

CAP work on OM – Extent & types of questions & what we know:

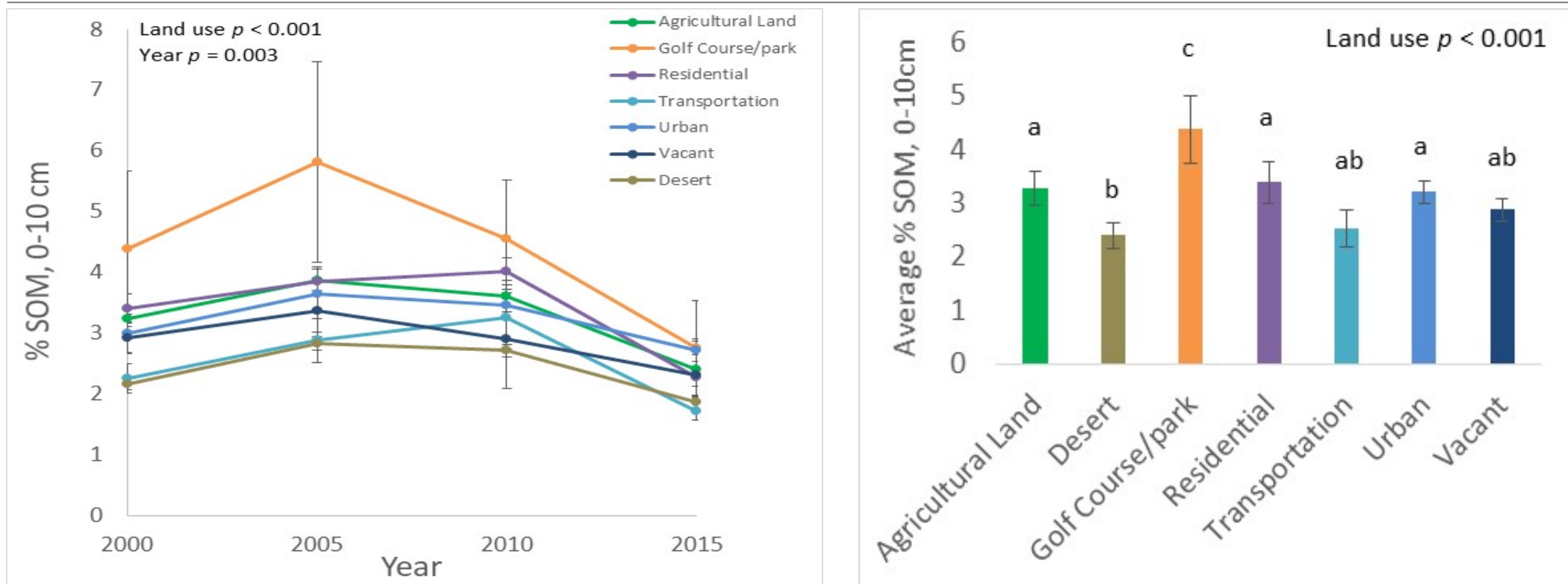
Decomposition/photodegradation dynamics in urban desert parks
Impact of urbanization/land use on soil OM and dynamics
(wetland & waste/stormwater) & DOC dynamics

Open questions / gaps in knowledge:

From structure to function: How is OM processed? Links to nutrient dynamics?



Organic Matter - Results



Soil organic matter (SOM) content of surface soils through time across broadly-categorized land use categories in the Phoenix Metropolitan Area, both as it changes over time (left panel) and averaged over 15 years (right panel).

Sites are sampled every 5 years through CAP's long-term Ecological Survey of Central Arizona.