

## Key research themes

Ecogeomorphology, biogeochemistry, structural-functional connectivity in terrestrial systems

Critical transitions, ecosystem state change, land degradation

## Key questions I’m interested in:

How do climatic drivers & disturbances alter structural-functional relationships in terrestrial systems?

How do structural-functional feedbacks maintain or modify the state of terrestrial systems?

Amplifying feedbacks?

## Approaches

Monitoring

Experimental

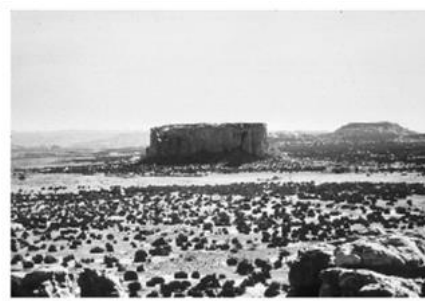
Processed-based and geostatistical modelling

Analysis of open source data sets(e.g. LTER/USDA historical data, RS data, CMIP outputs)

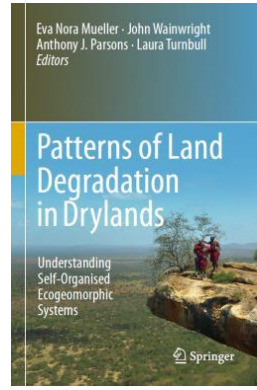
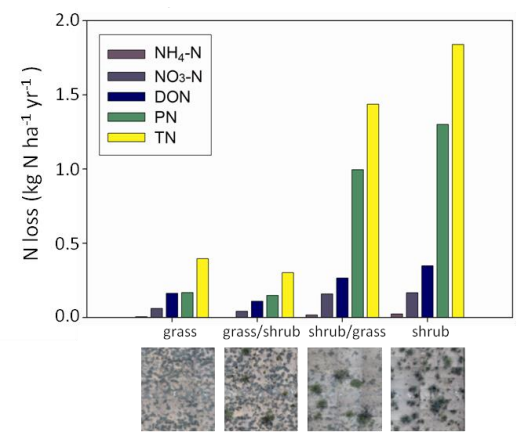
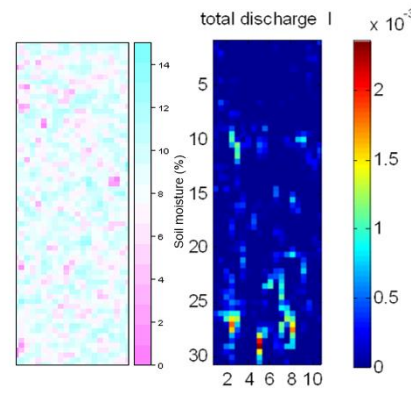
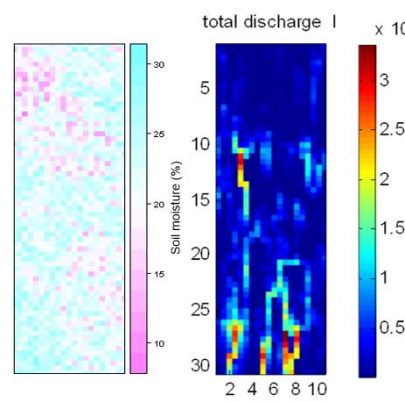
# Ecogeomorphology in grassland/shrubland



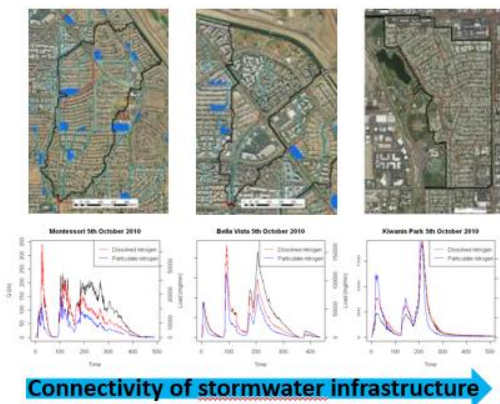
Enchanted Mesa, New Mexico 1899



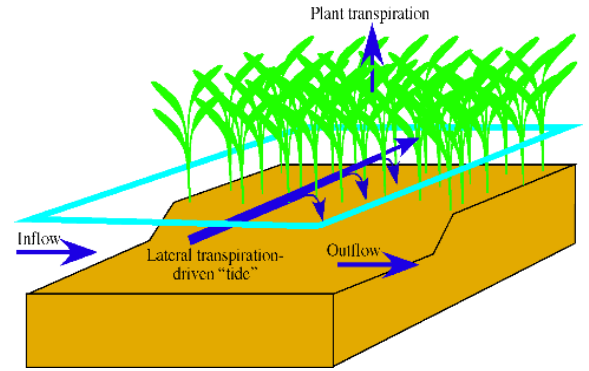
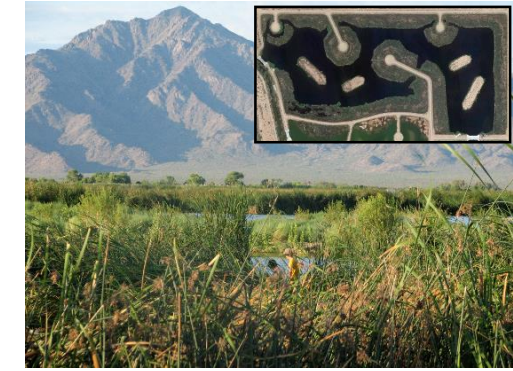
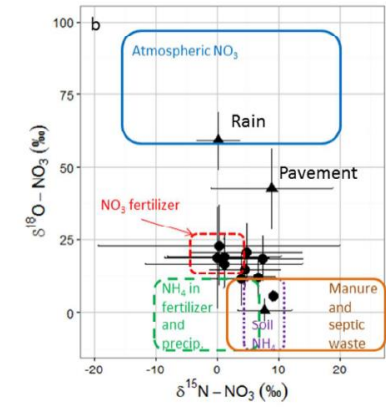
1977



# Human modifications to the environment (CAP LTER)

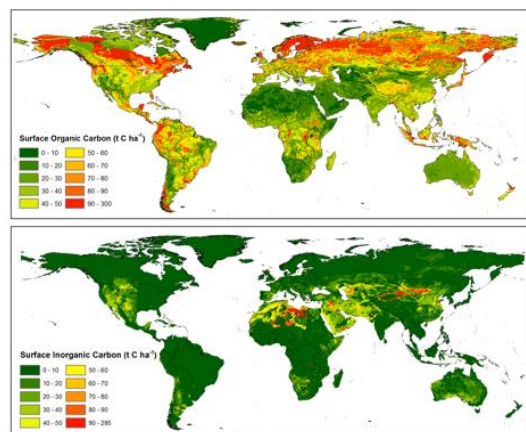


Connectivity of stormwater infrastructure



# Land degradation in drylands

Soil carbon stock



Erosion-driven C loss

