

Vegetation & Landscape Questions:

- Predict interactions hydrology, vegetation, land use, hydraulics (gH2O & surface) of floodplains.
 - Ex: Rio Puerco, NM: grazing, incision, aridification
- Predict Human effects on erosion, sediment delivery & storage.
 - Ex: Le Sueur River, MN: post-glacial incision, agriculture
- Predict effects of changing forestry practices, climate change, etc., on sediment production, delivery, storage, etc., and effects on fisheries in the mountains.
 - Ex: Oregon Coast Range: timber, landslides, salmon
- Predict interactions hydrology, vegetation, land use, hydraulics (gH2O & surface) of floodplains
 - Ex: Rio Puerco, NM: grazing, incision, aridification
- Generalize models developed for specific places?

Vegetation & Landscape Couplings:

- Vegetation \leftrightarrow geomorphology/sediment/hydrology
 - Roughness
 - Cohesion
 - Hydrology (ET, runoff, interception)
 - Impoundment/trapping, storage
 - Soil production/weathering
- Human \leftrightarrow etc.
 - Economic \leftrightarrow management style: flow of biomass
 - Productivity: management style
 - Sociological: restoration opportunities
- Reservoirs...elephant in the room

Models, Gaps

- Time and space scales:
 - Event
 - Engineering (human, decadal to century)
 - Landform
- What do we need & what can we get from
 - Vegetation models
 - Human models
- What can we get from new data (e.g., hi-res topo)?
- Sensitivity to temporal & spatial resolutions?
- What do geomorphic models need to do to incorporate vegetation effects?
- [model elephant in the room: CHILD]