



- Poorly drained depressional feature
- < 20% of habitat remains
- > 100 species of endemic plants
- > 30 species of endemic crustacear

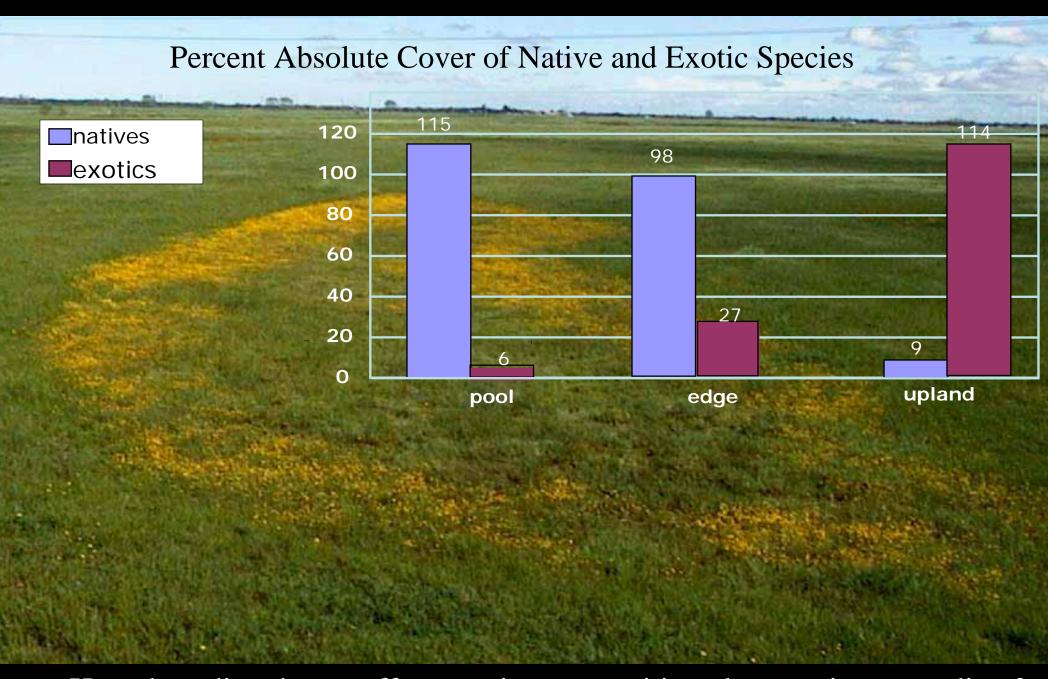
Summer/Fall Winter F4 Spring

Seasonality

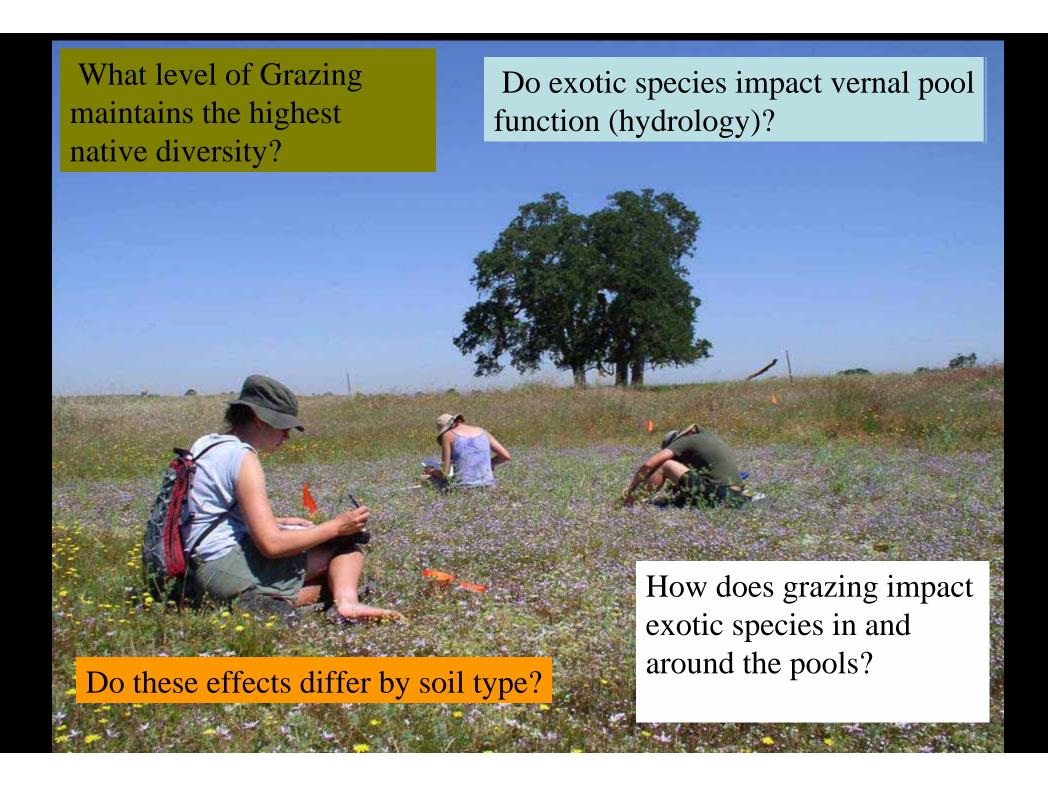


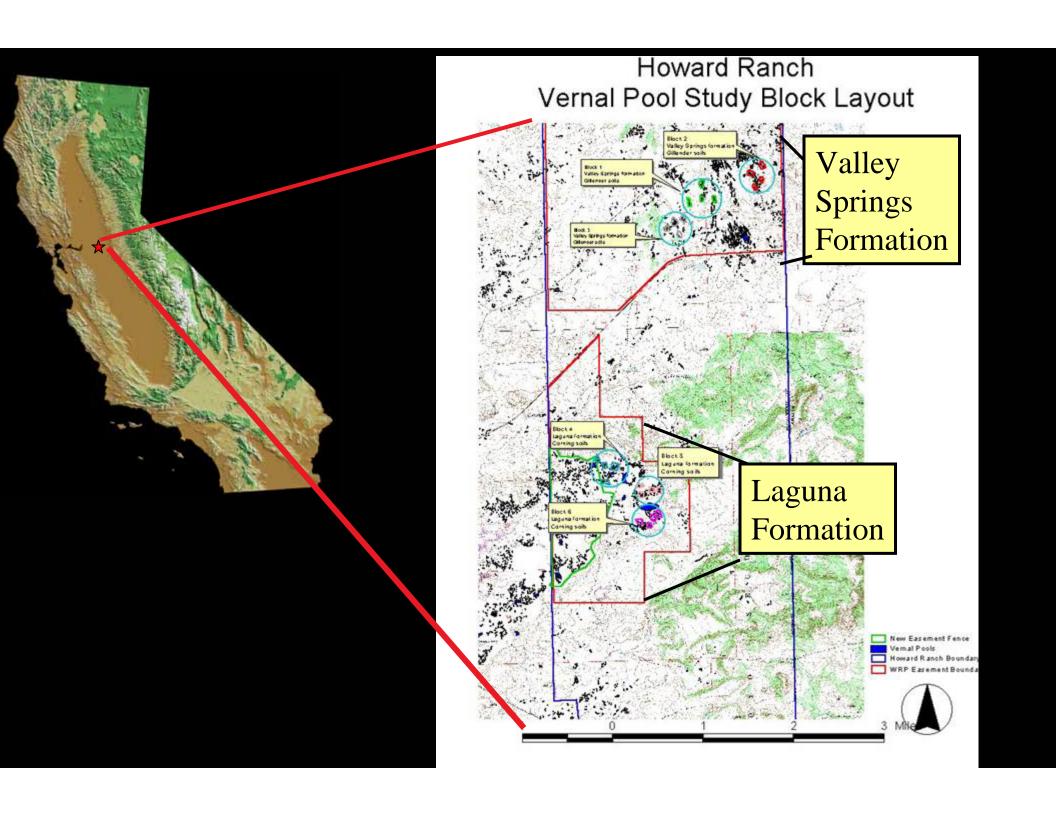




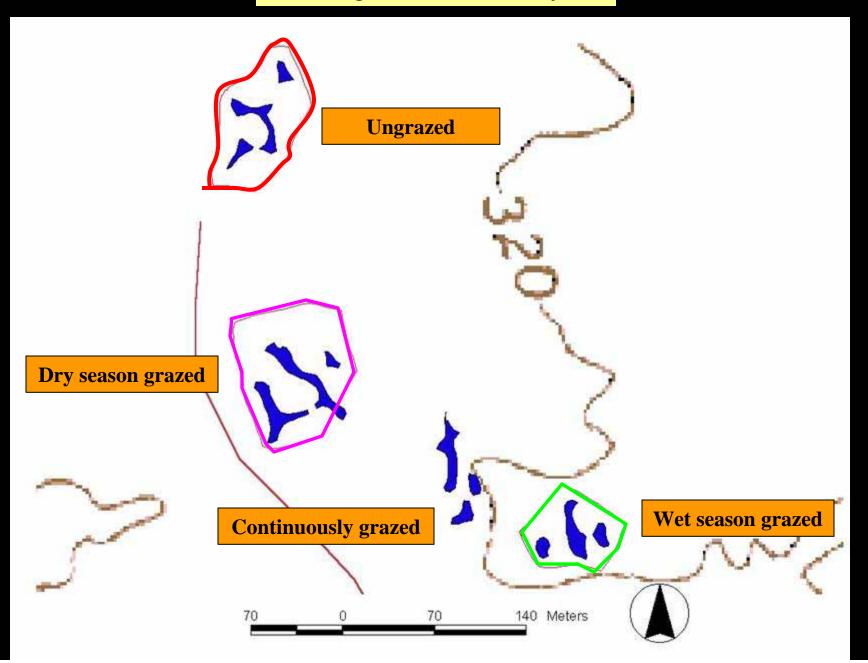


How does disturbance affect species composition along moisture gradient?

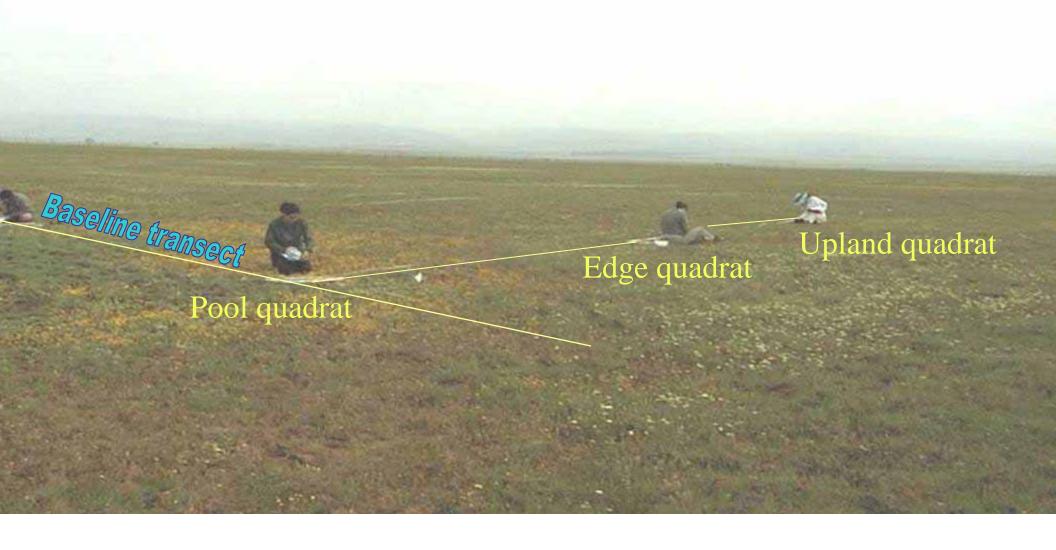




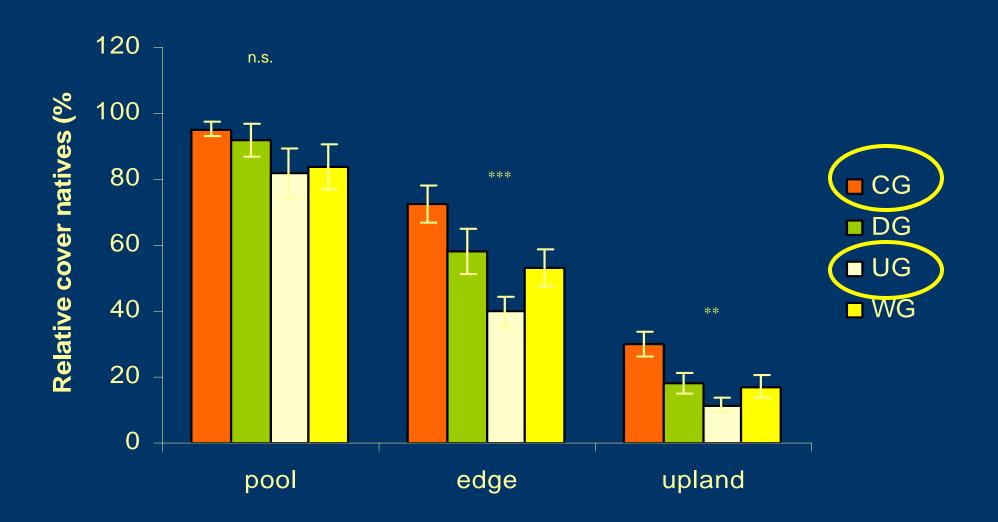
Grazing Treatment Layout



Vegetation Sampling Scheme

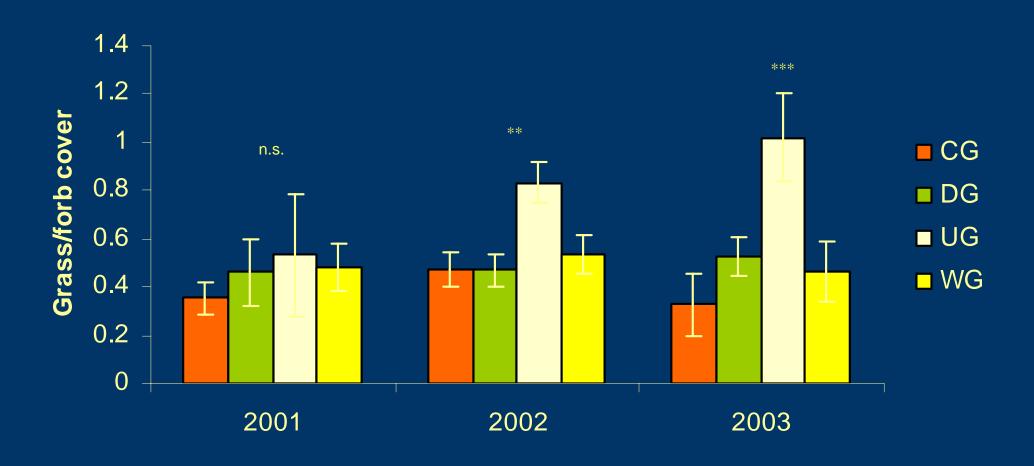


Relative cover of natives remains high in continuous grazed plots



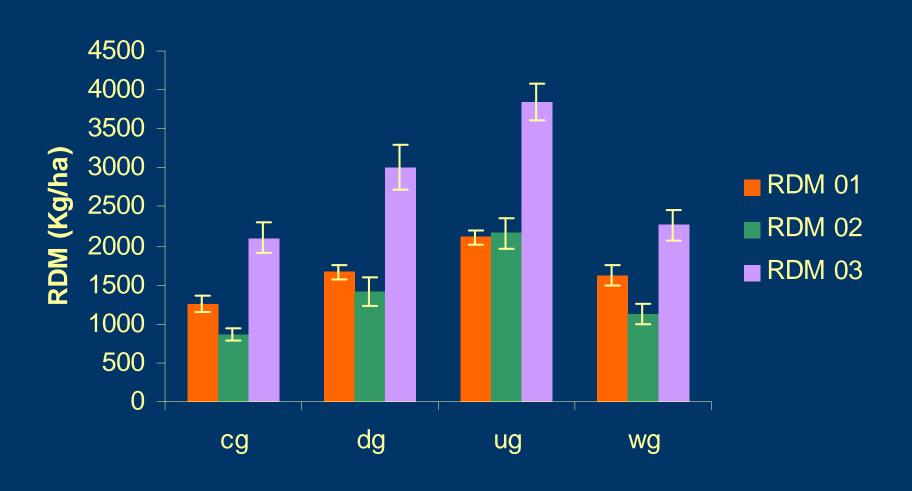
n.s., not significant; * p < 0.05; ** p < 0.01; *** p < 0.001

Composition is shifting to higher grass dominance in ungrazed plots

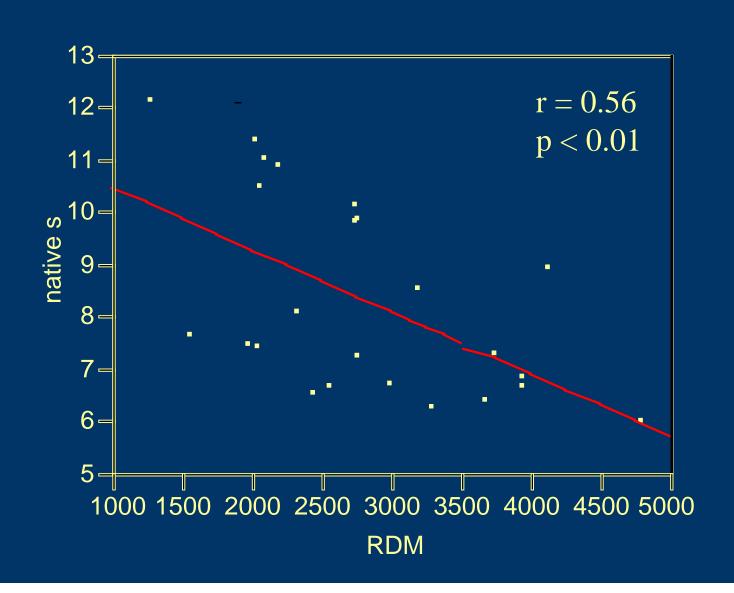




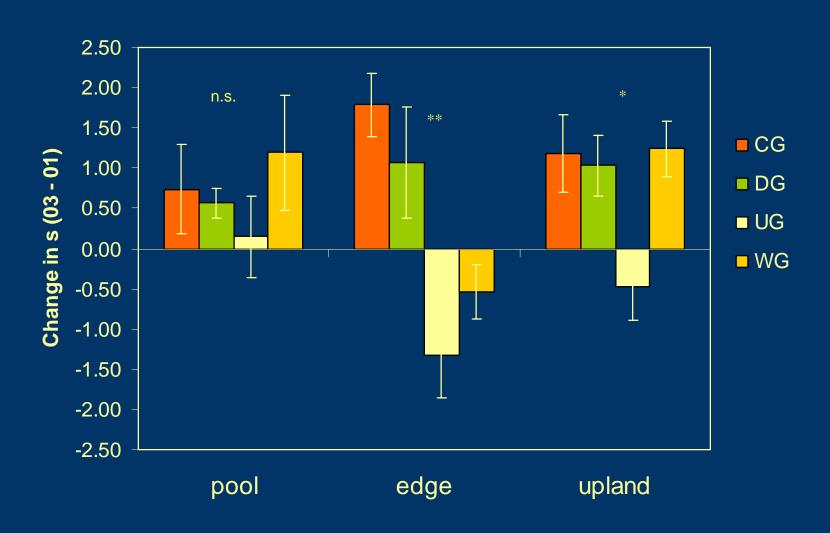
Annual RDM values - Precipitation matters



Native richness declines at higher RDM levels



Change in native richness positive in grazed pools negative in ungrazed pools



Does (lack of) grazing affect vernal pool function (hydrology)?



VS.



...and what about the aquatic critters?

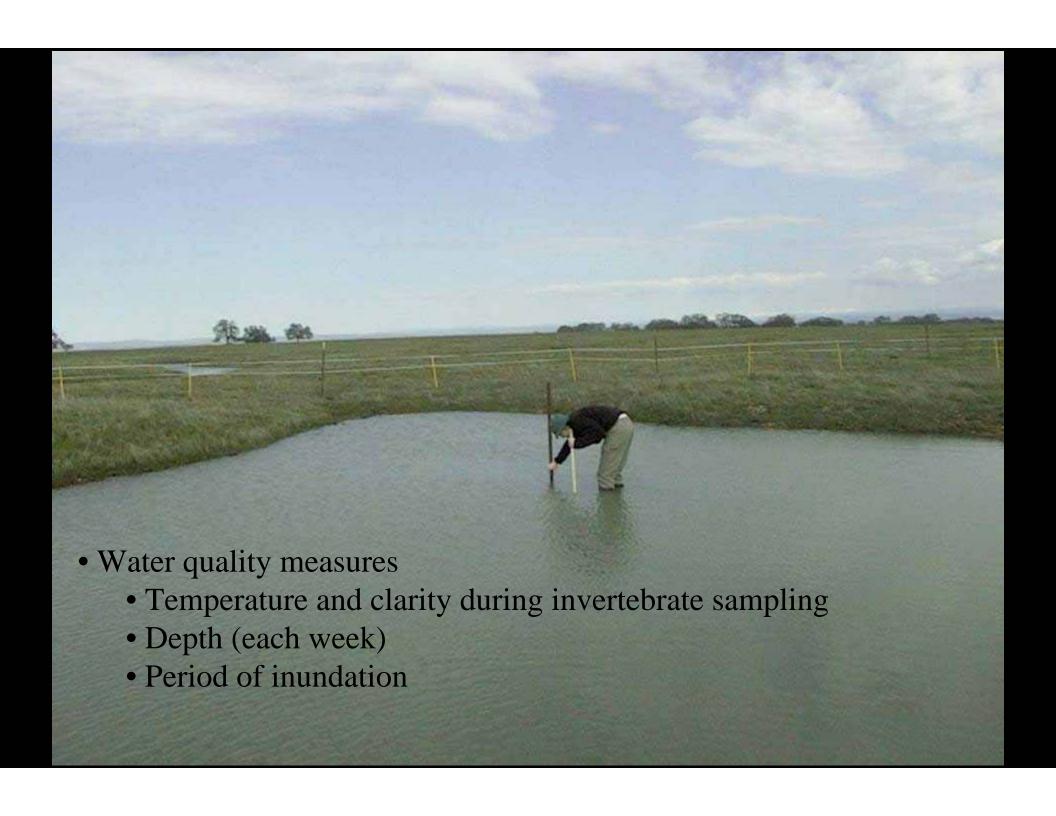






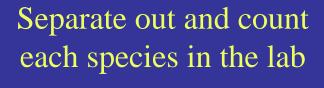


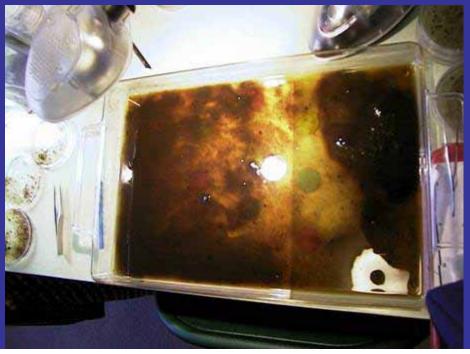
©Ken Davis





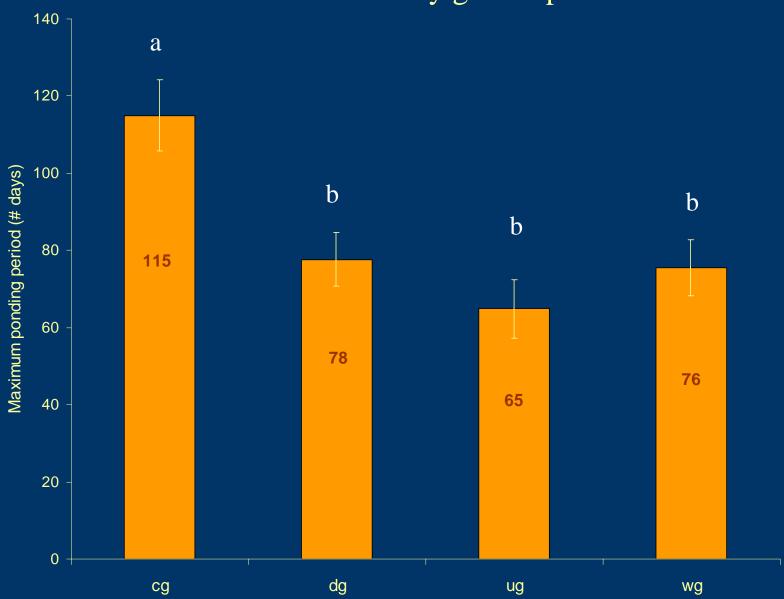




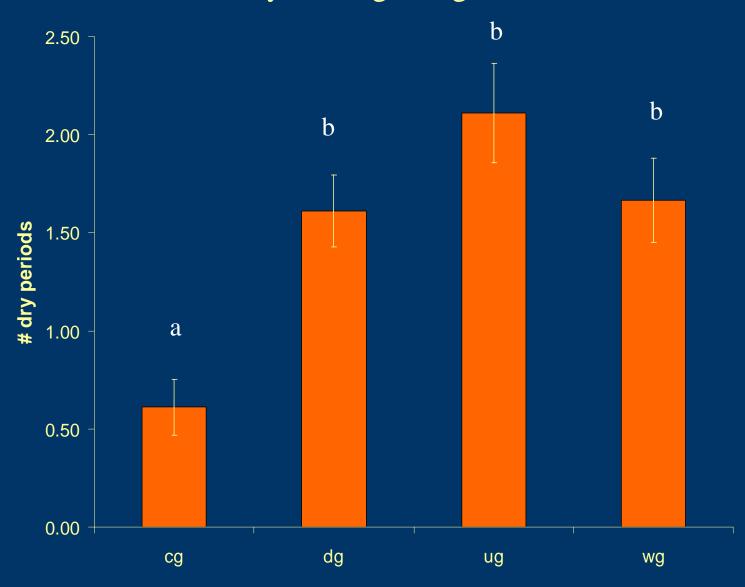




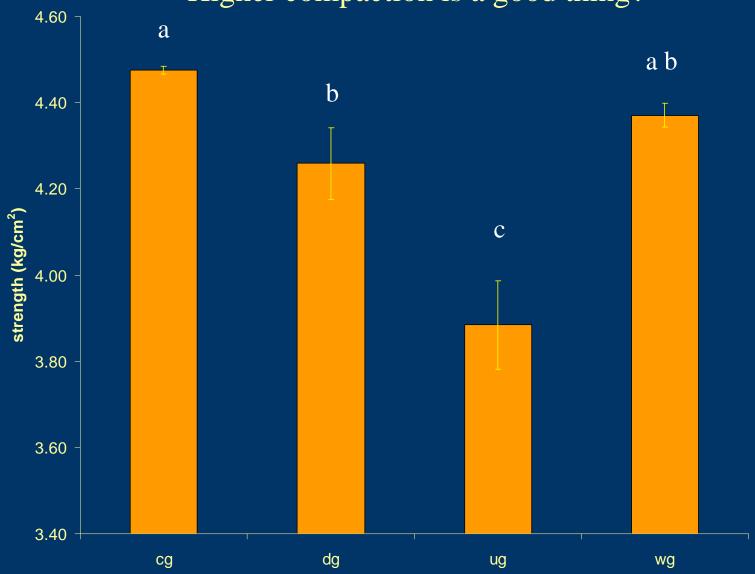
Average maximum ponding period 50 days less in ungrazed pools vs. continuously grazed pools



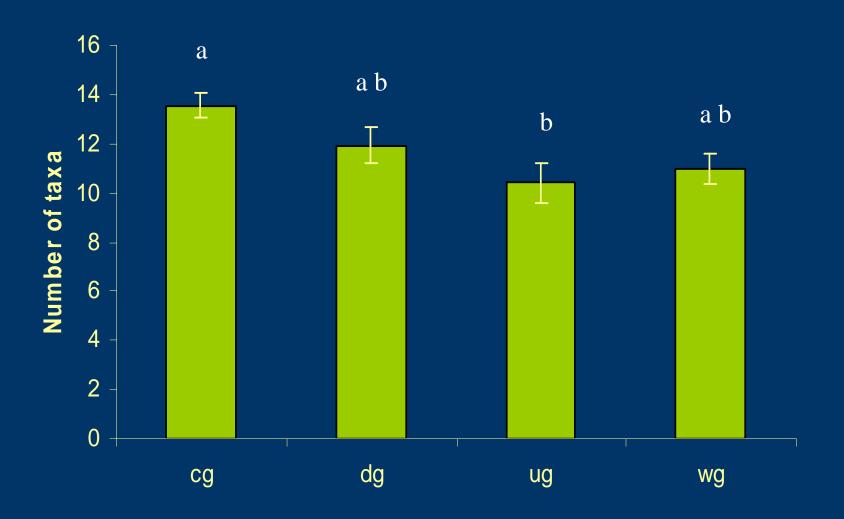
Continuously grazed pools dried completely fewer times than any of the grazing removal treatments



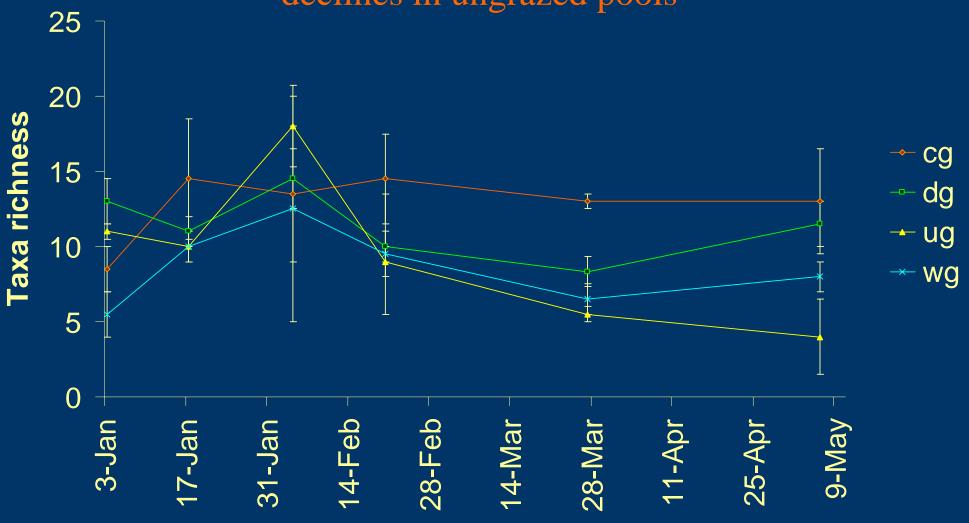
Soil compaction is lowest in ungrazed pools Higher compaction is a good thing?



Invertebrate taxa richness is lowest in ungrazed plots



Taxa richness remains constant in continuous grazed pools, declines in ungrazed pools



Implications for Management and Restoration

- If it's grazed and has high diversity, leave it grazed
 - Unless there's a compelling (science-based) reason to change
 - If management changes are made, monitor (including a control)
 - Grazing too little should be more of a concern
 - Removal of grazing may negatively impact pool hydrology and species requiring long periods of pool inundation

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