

A wide, flat landscape, likely a prairie or grassland, featuring a mix of green grass and numerous yellow and white wildflowers. The horizon is flat and distant, with a cloudy sky above. The text is overlaid on the top portion of the image.

**Eating exotics for lunch:  
Using cattle grazing to reduce exotic species cover  
and promote native plant diversity**

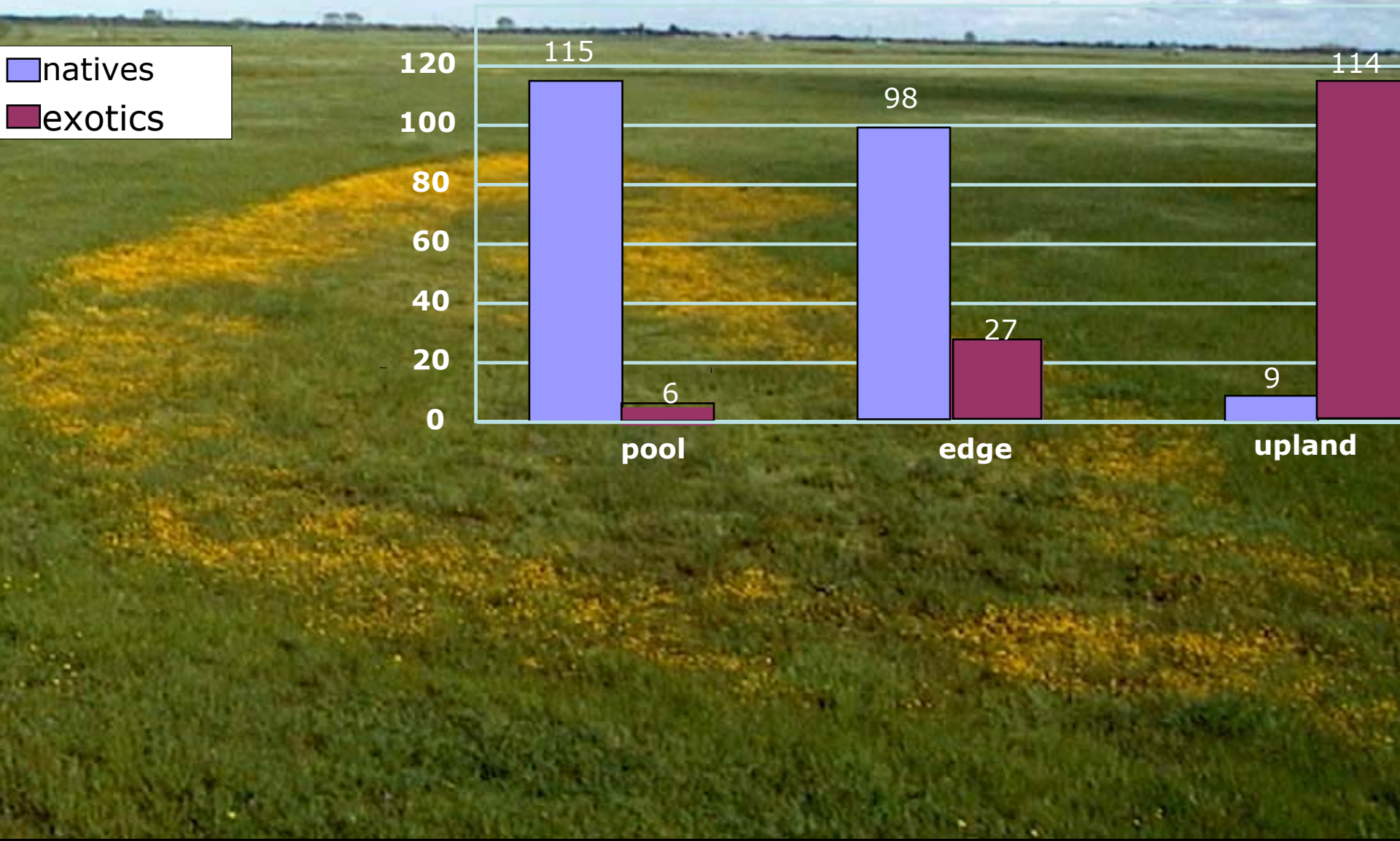
**Maymee Marty, Ph.D.  
The Nature Conservancy**



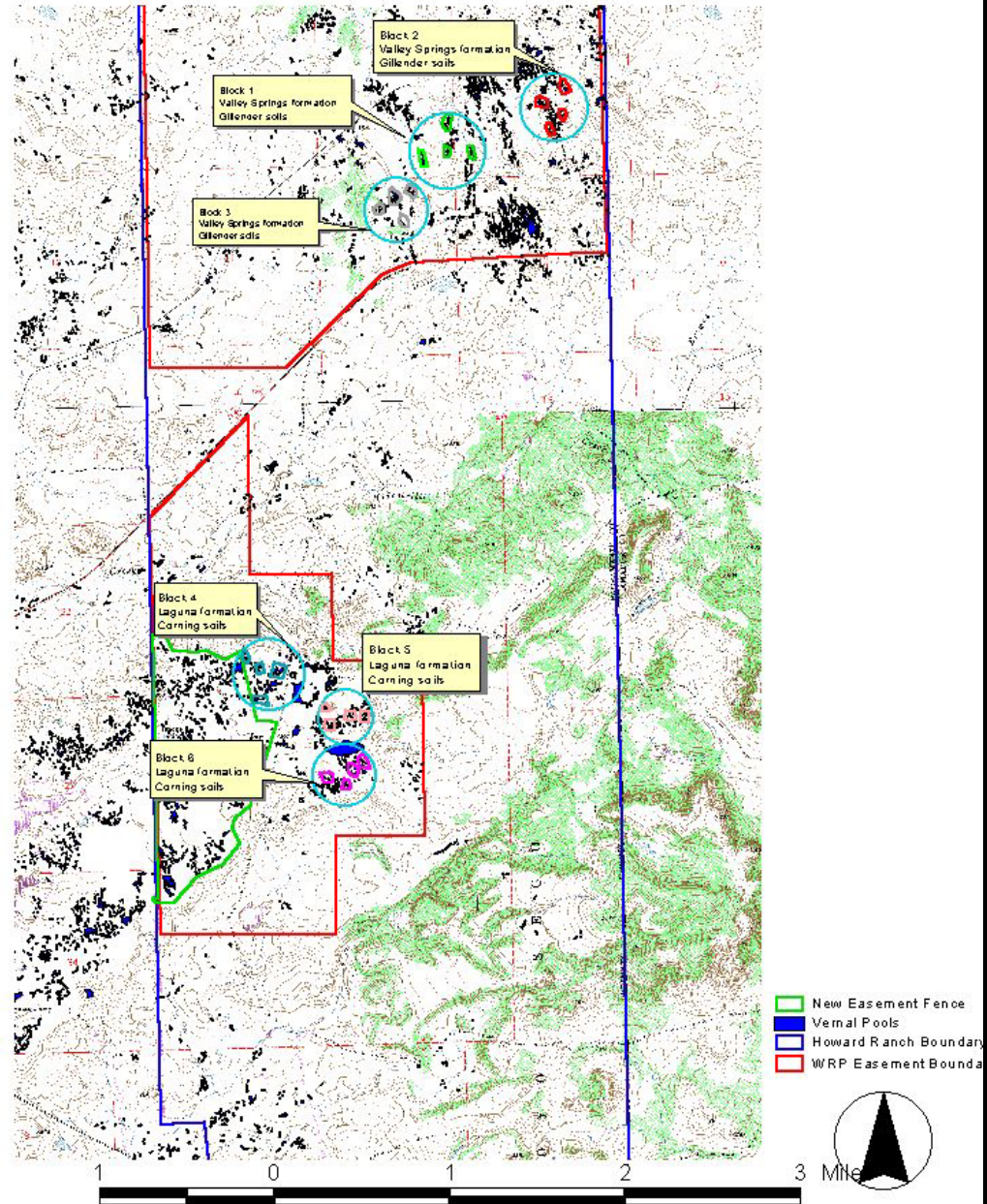




# Percent Absolute Cover of Native and Exotic Species



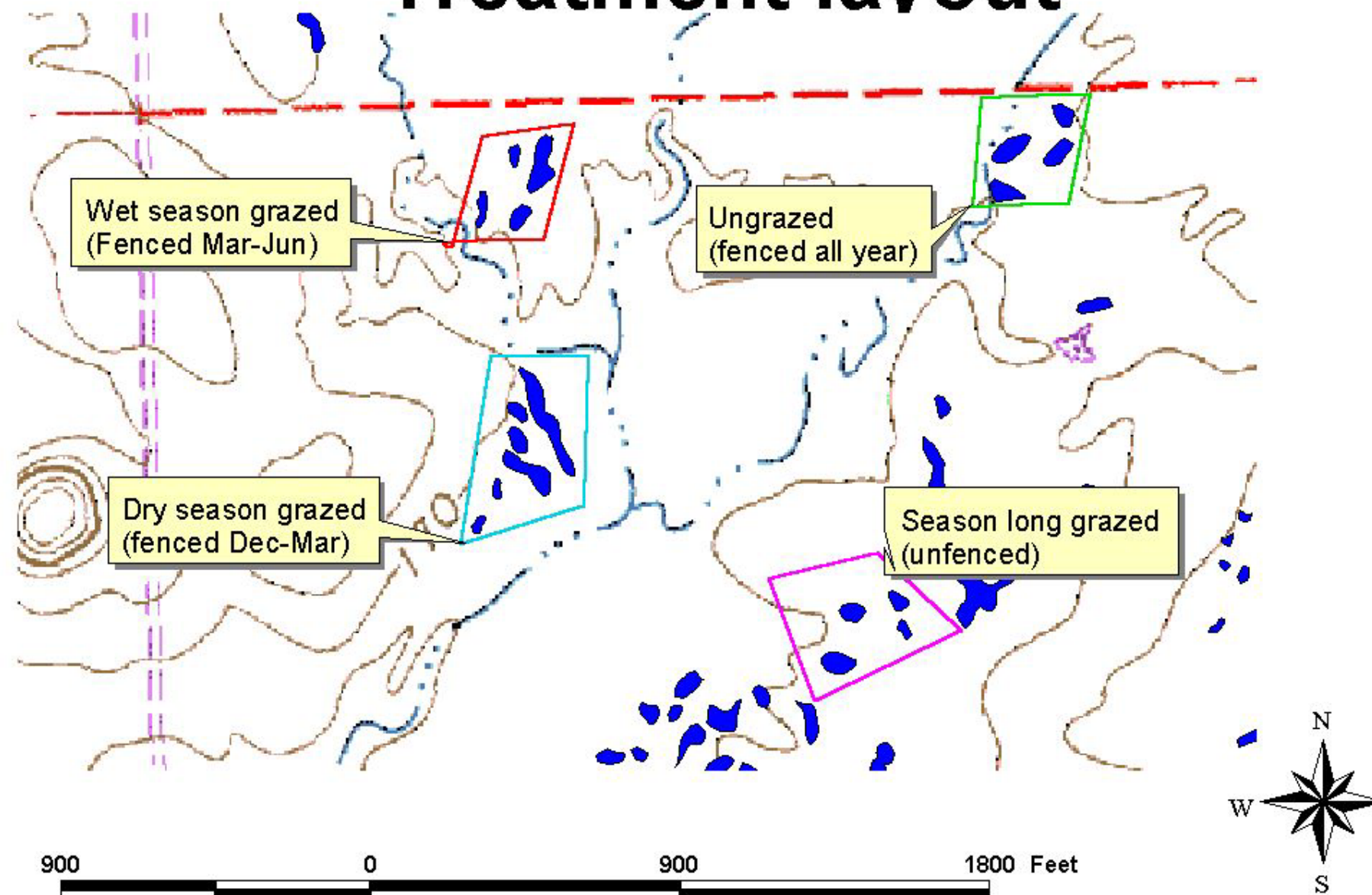
# Howard Ranch Vernal Pool Study Block Layout



# Experimental design for grazing study

	Geologic formation		
	Valley Springs	Laguna	
Ungrazed	3	3	
Wet season grazed	3	3	
Dry season grazed	3	3	
Continuous grazed	3	3	Total replicates
Subtotal by geologic formation	12	12	24

# Vernal Pool Study Treatment layout





# Sampling Scheme for Vernal Pool Grazing Project



## Cover Measures:

Plants

Bareground

Thatch

Cowpies

Rock



**Don't forget the Inverts!**

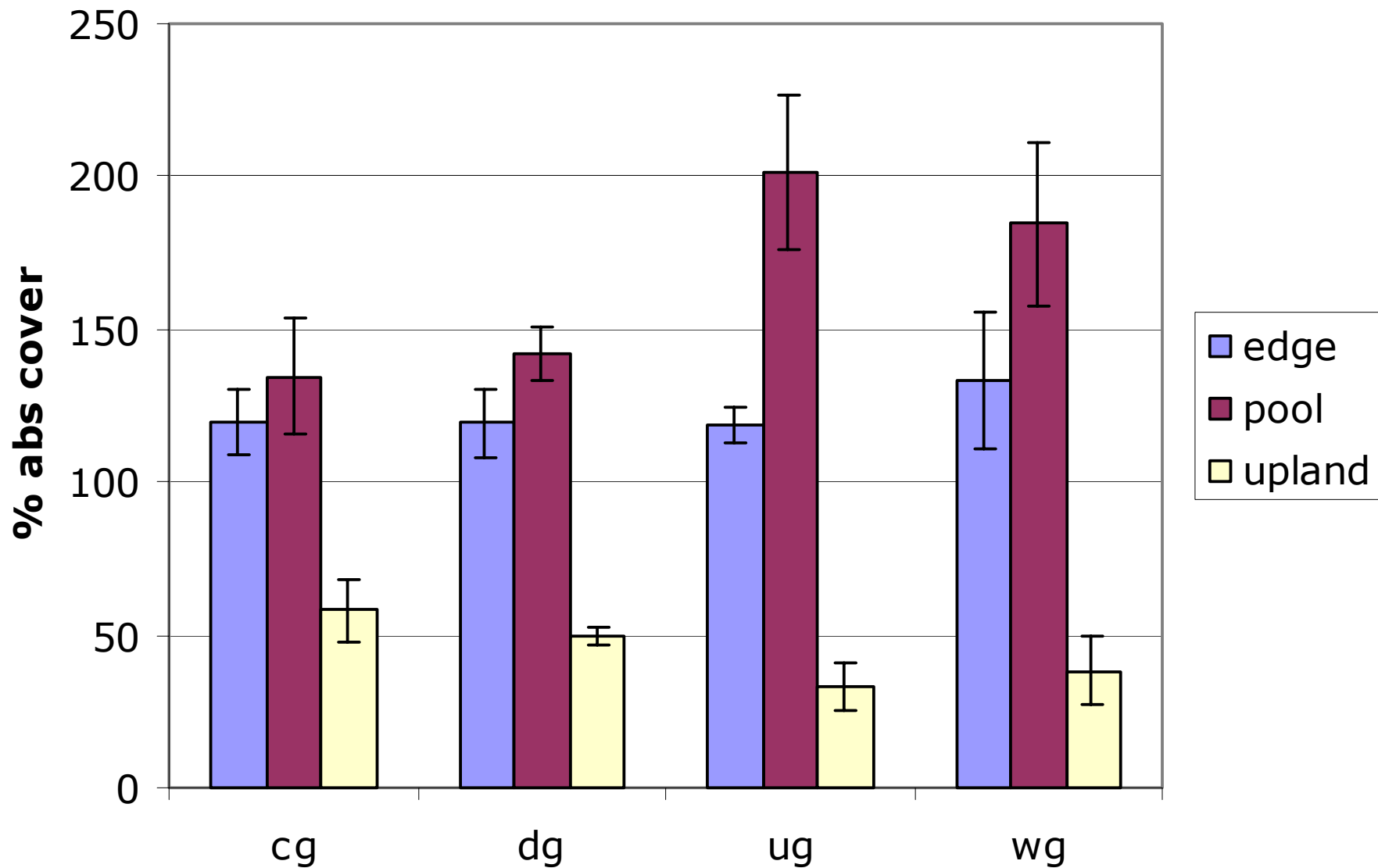




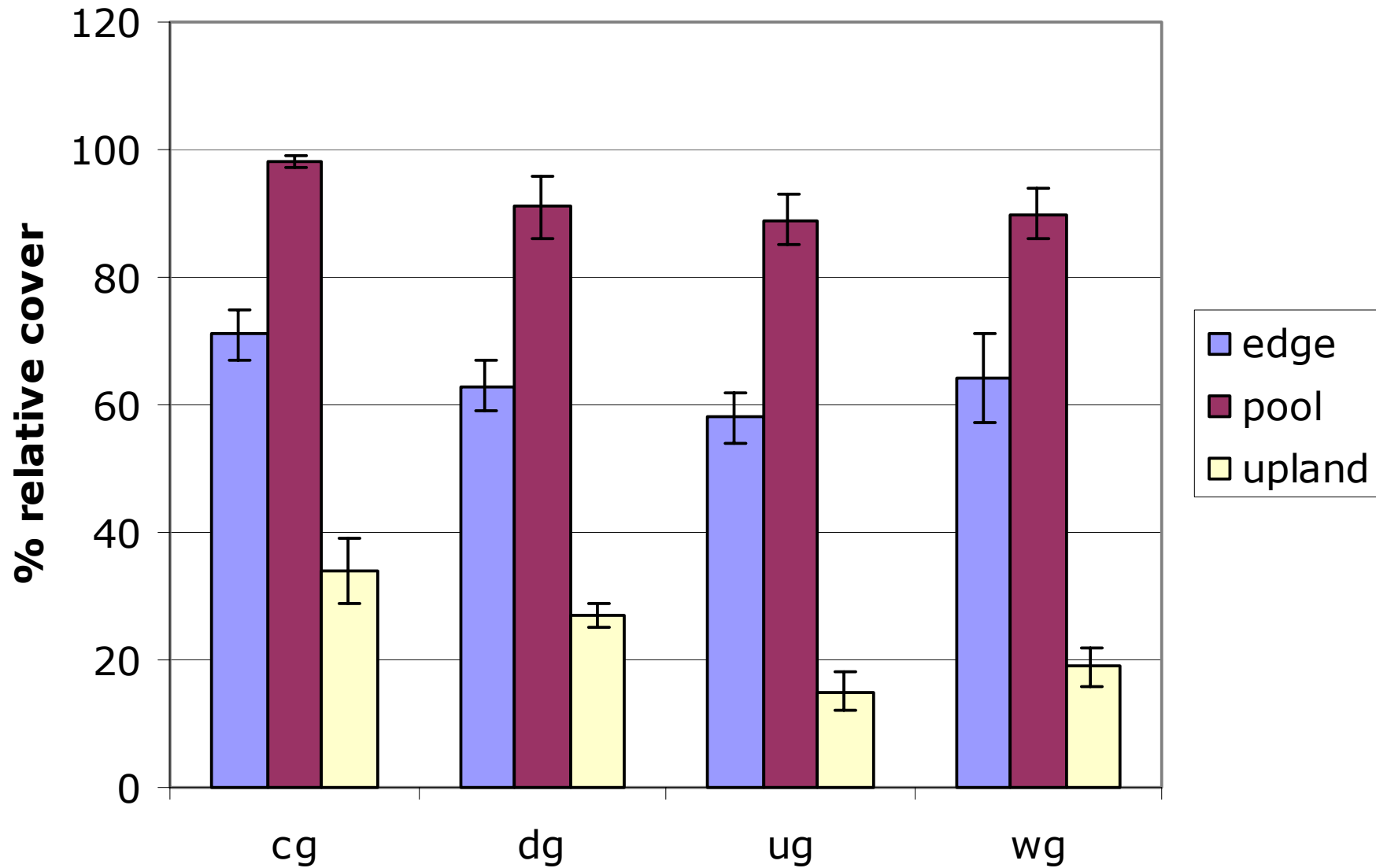
Continuous grazed (RDM =  
1000 kg/ha)

Ungrazed (RDM =  
2000 kg/ha)

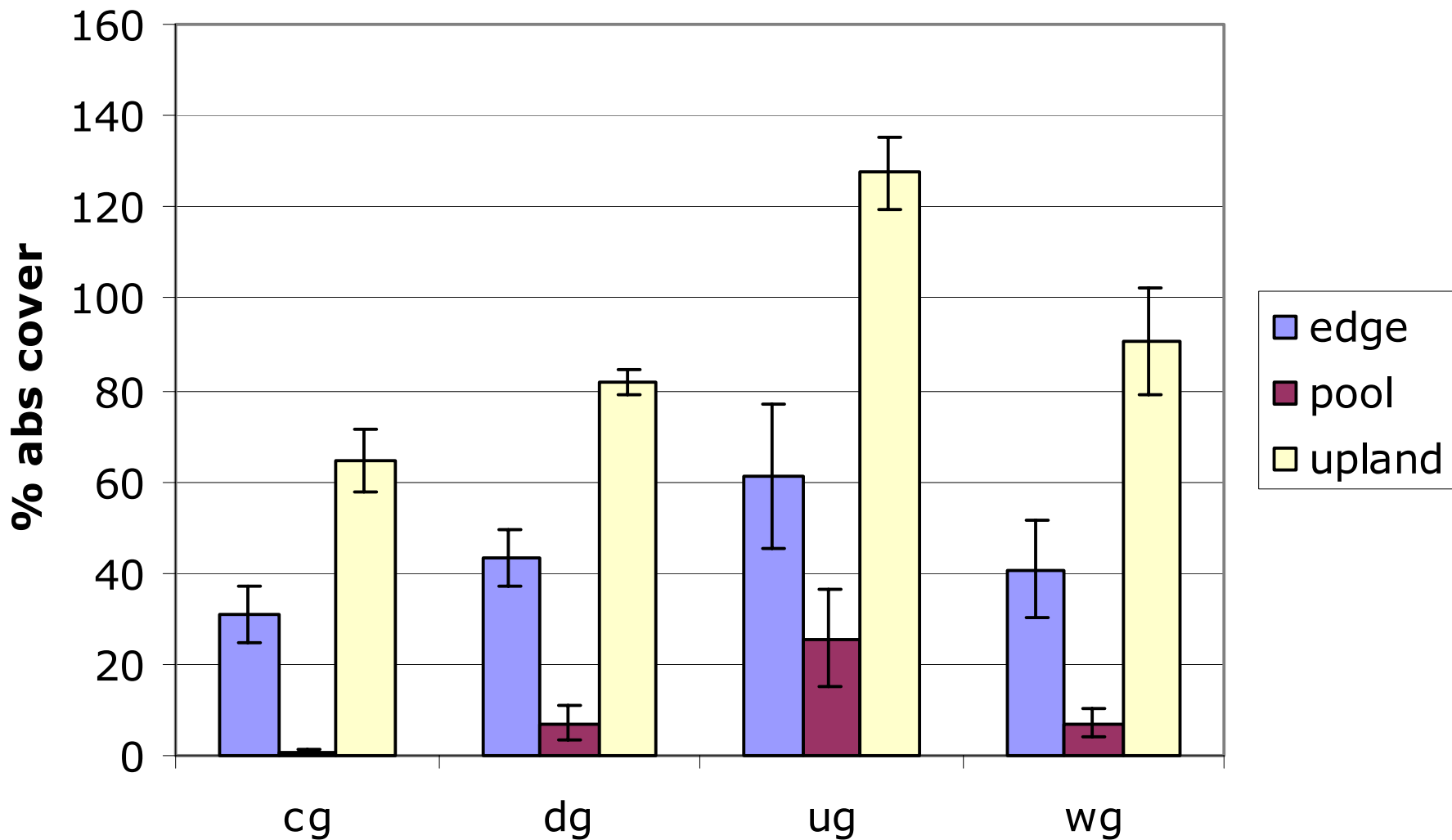
# Absolute cover natives-2nd year



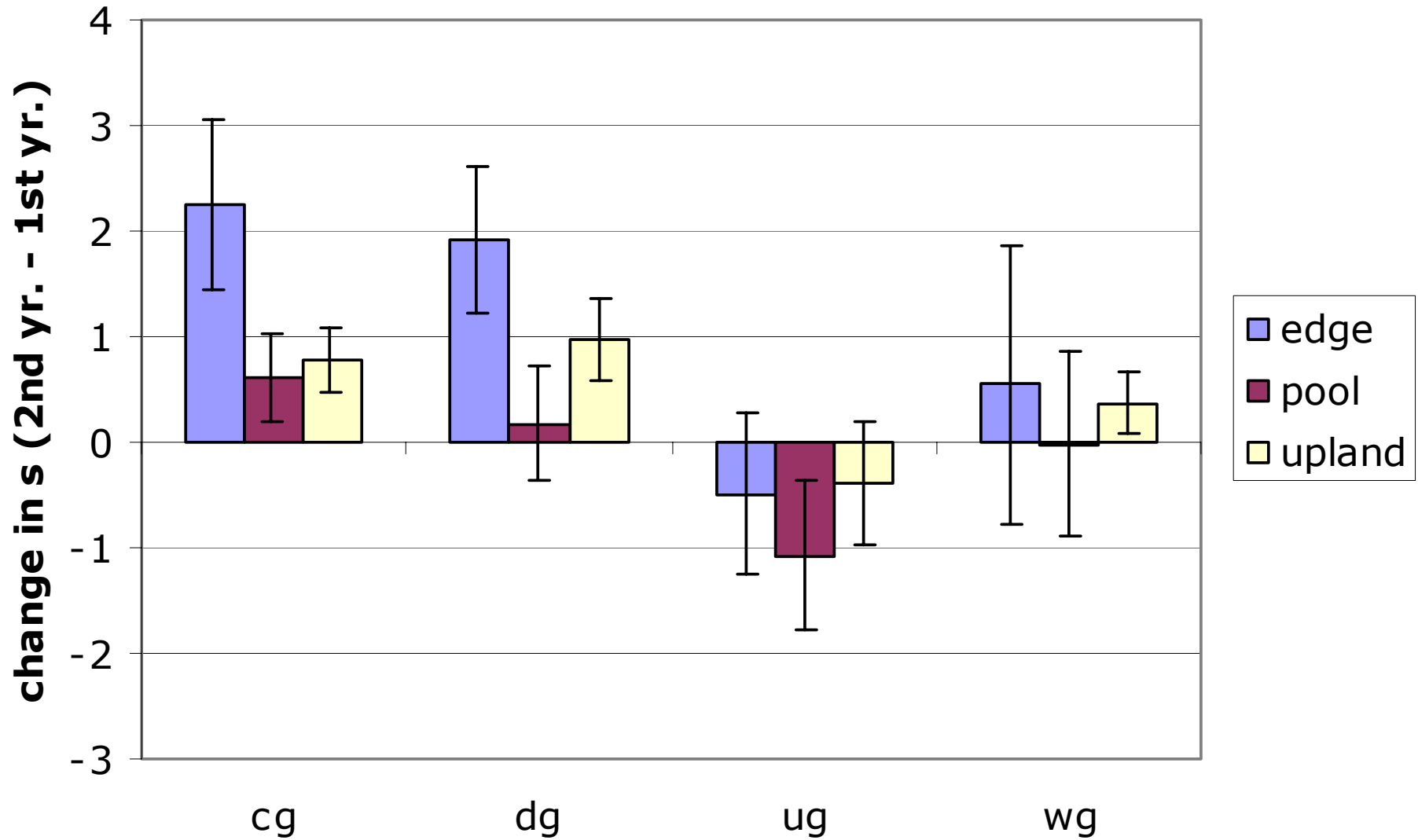
# relative cover natives - 2nd year



# absolute cover exotic annual grass - 2nd year

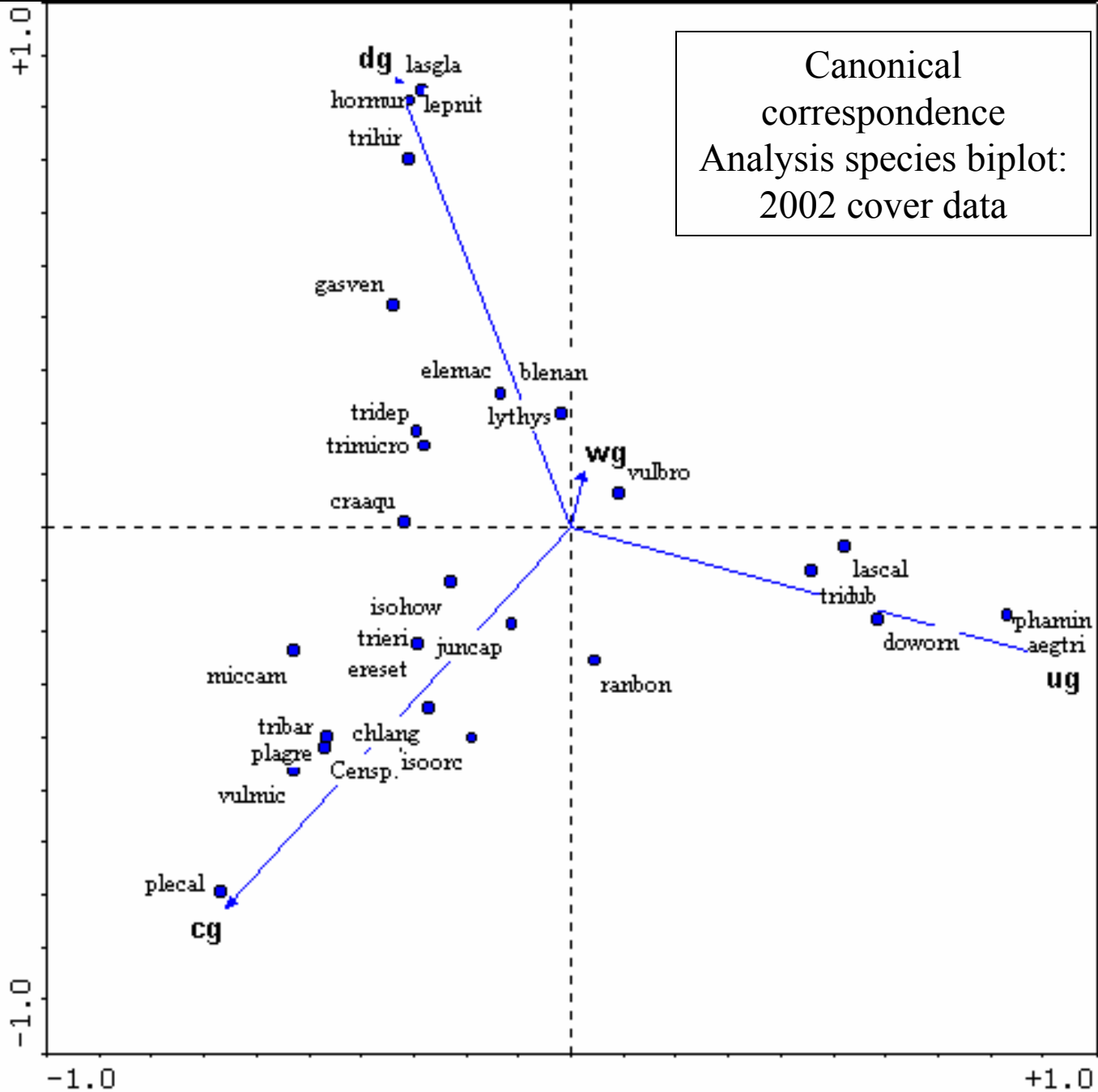


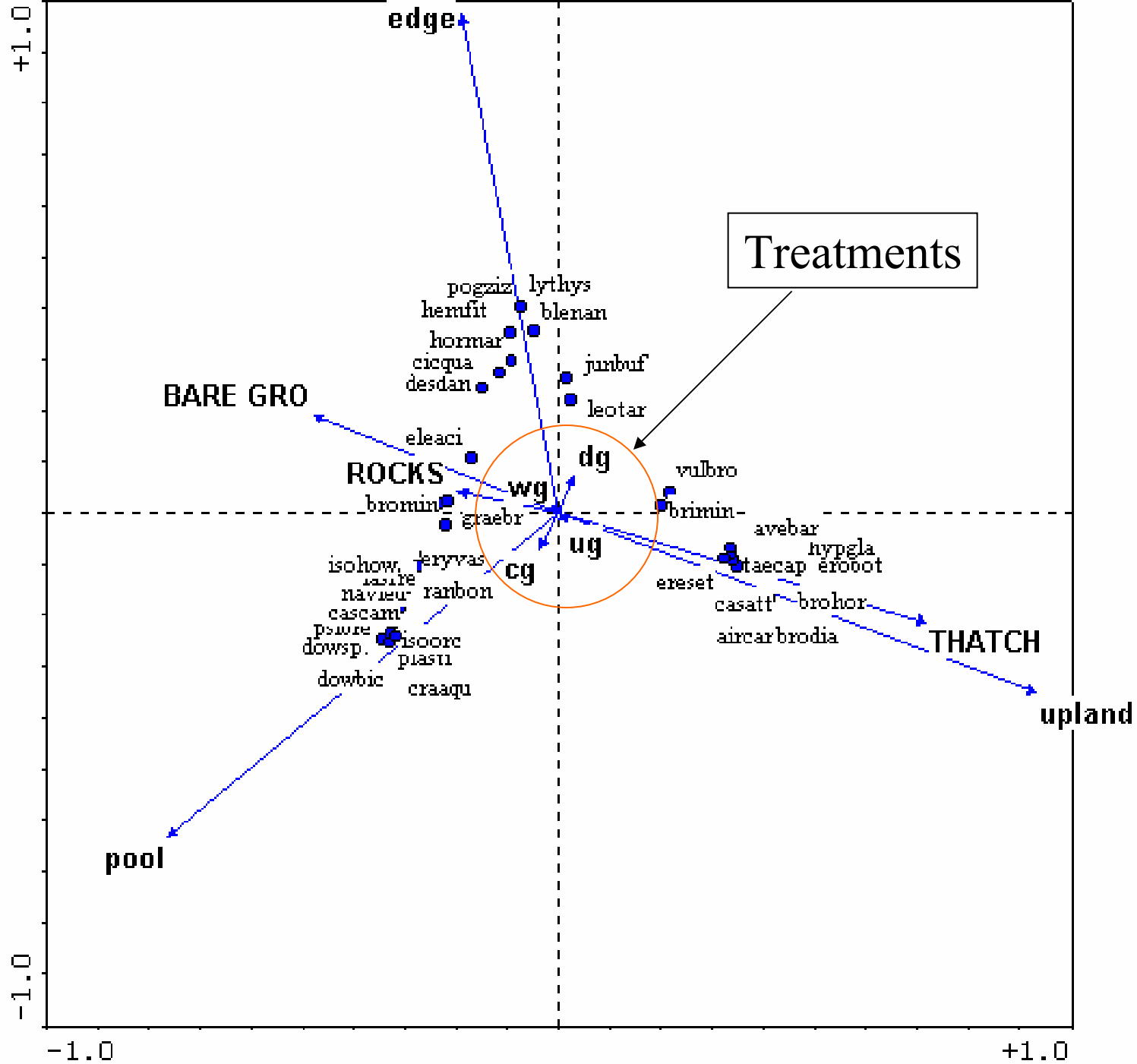
# Change in native species richness





Canonical  
correspondence  
Analysis species biplot:  
2002 cover data





# Conclusions

- Continuous cattle grazing reduced the cover of exotic species, particularly annual grasses
- Relative cover of native species was highest in continuous grazed plots for all three zones
- Species richness declined in ungrazed plots and increased in continuous grazed plots
- Quadrat location and other variables explain more of the species variation than grazing treatment

THANK YOU!

