

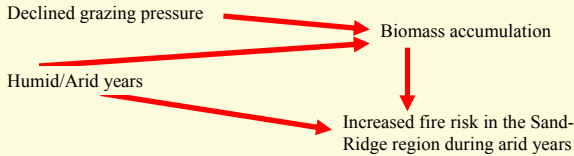
Grazing Effects on the Spread of Fire and on the Vegetation of Open Sand Grassland



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Introduction



Questions

- Can moderate grazing affect the spread of fire on open sand grassland?
- What is the difference between the effects of the different grazing types (timing, grazing species)?
- What are the short term effects of grazing and fire on the species diversity?



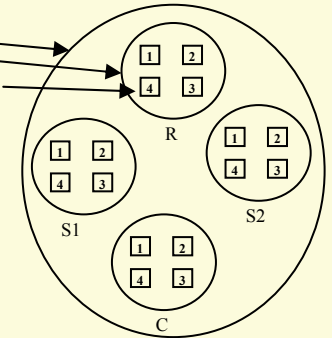
Grazing by sheep on a fenced grassland patch
 Sheep eat the top of the vegetation



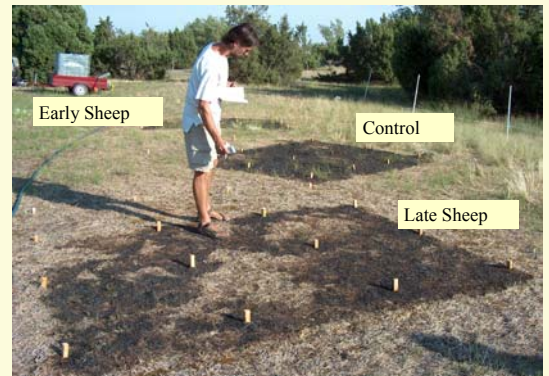
Rabbits consume the interior portions of the vegetation

Experimental design

10 blocks
 4 patches in 1 block
 4 quadrates in 1 patch
 (1 by 1 meter)



Treatments:
 S1= Early Sheep in April
 S2= Late Sheep in May
 C = Control
 R = Rabbit in May



View of three patches after burning in July of 2003

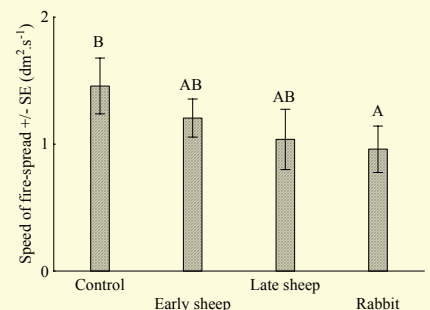
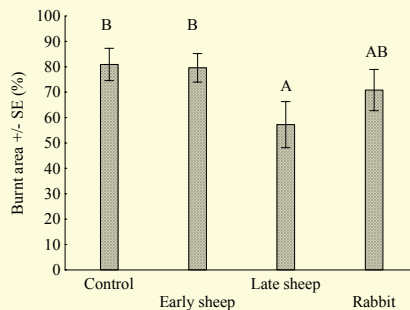
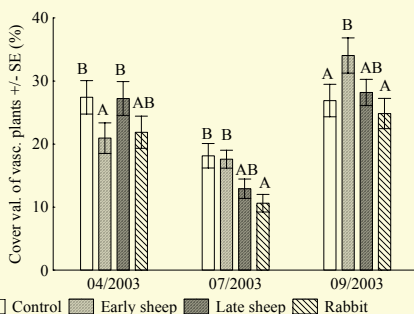
Results and discussion

Moderate grazing may cause lower fire-spread on open sand grassland, but

- timing is important in the aspect of regeneration until the dry season,
- grazing species affect vegetation structure in different ways (plant height, species composition).

Open sand grassland vegetation recovers fast after moderate grazing and fire.

Fire does not decrease species diversity unless it damages the woody vegetation of the forest-steppe.



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