



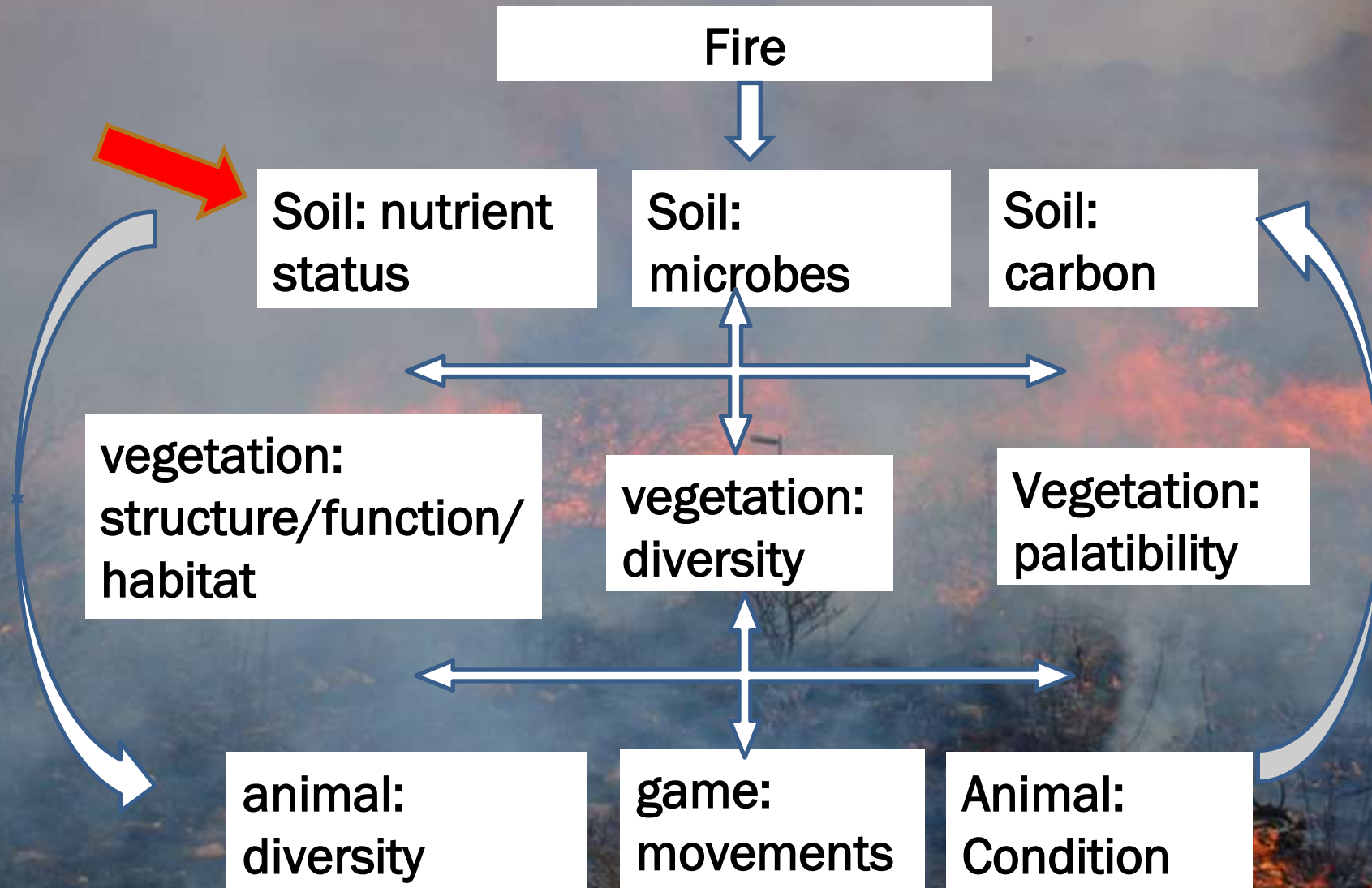
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The effects of fire history on soil nutrients, soil organic carbon and soil respiration in a semi-arid woodland savanna, Central Namibia

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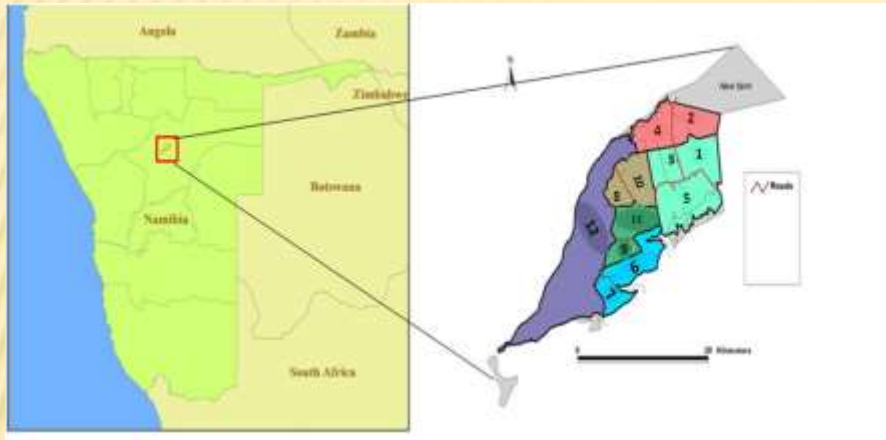




Objectives

- ✘ To determine the effects of time since last burn on soil organic carbon and soil nutrients.
- ✘ To determine whether soil respiration (also as a proxy for soil microbial biomass) responds to time since last burn in the same way under different vegetation patch types (bare ground, under grass and under shrub).

Study site & methods



Fire treatment	Time since last burn (year)
1	1
2	2
3	14
4	24



Findings

- ✘ Current fire regimes have no detrimental effects on soil organic carbon and nutrients.
- ✘ Fires were not sufficiently intense to cause detrimental impacts and impair soil resources recovery.
- ✘ Fire may have important indirect effects on soil respiration by decreasing the cover of shrubs.
- ✘ The higher soil respiration observed under shrubs in the field experiment is largely attributed to root respiration.

Thank You!