WHAT DO WE KNOW SO FAR ABOUT FIRE EFFECTS ON THE DYNAMICS AND FUNCTIONAL GROUPS OF BRAZILIAN SUBTROPICAL GRASSLANDS?

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Fire is a major factor influencing several grassland ecosystems in the world. However, less is known about the effects of fire on the vegetation dynamics and functional groups of Brazilian tropical and subtropical grasslands. Therefore, I would like to go through what we know about fire effects in these grasslands in my presentation. Brazilian *Campos* grasslands are subtropical grasslands located in the southernmost state of Brazil and thus, is a unique ecosystem. It is very rich in plant species and although the present climate favours forest ecosystems, grasslands can be found throughout this region. Therefore, it is hypothesized that disturbance (mainly grazing and fire) is responsible for its maintenance. Fire has been present since 7400 yr BP and it affects vegetation dynamics mainly by removing aboveground biomass and thus forming open spaces within the dominant graminoid matrix, favouring other forbs and graminoids to establish. The major regeneration strategy is resprouting, and plants resprout mostly from buds located belowground and at surface level. Flowering is also enhanced by fire, since forbs tend to flower just after fires. Above - and belowground biomass are affected by fire, since the exclusion of fire lead to an increase in aboveground dead biomass, which can lead to more intense fires and a worse regeneration of the vegetation. Therefore, the role of fire in these grasslands should be reviewed and long - term studies should be carried out in order to evaluate fire effects on grassland dynamics.