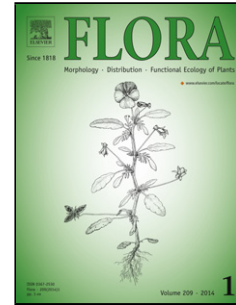


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Shading, nitrogen and soil texture rule a sandy savanna: does facilitation rule its patchy physiognomy as well?

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Highlights

- This work aimed to understand assembly rules in a sandy savanna, a Mussununga.
- Shading, leaf nitrogen and soil texture rule all physiognomies of that Mussununga.
- Shading was positively related to leaf nitrogen content and may cause facilitation.
- Patchy savanna was more shaded, with more leaf nitrogen and species richer than grassland/savannas.
- Patches in patchy savanna may be a result of facilitation.

ABSTRACT

Oligotrophic sandy ecosystems have been the subject of investigations into understanding assembly rules because of their harsh conditions. Light, nitrogen availability and soil texture can cause constraints in oligotrophic sandy ecosystems, but can be attenuated by shading. This work aimed to answer the following questions. How do light (shading), soil texture and nitrogen interact in ruling an oligotrophic sandy savanna? Does the assemblage of patchy savanna differ from the assemblage of other physiognomies? If it differs, could the assemblage of patchy savanna be explained by plant–plant facilitation? Five

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