

Phytosociology of natural and naturalized pastures in Santa Catarina highlands

Cassiano E. Pinto*¹, Tiago Celso Baldissera¹, Fábio C. Garagorry², Newton B. Costa Junior³,
Sérgio Campestrini⁴, Rafael Trevisan⁵

¹EPAGRI, Estação Experimental de Lages, SC, Caixa Postal:181, CEP.: 88502-970;

²EMBRAPA, Pecuária Sul, Bagé, RS; ³EPAGRI, Gerência Regional de Lages, Programa de Pós Graduação em Produção Vegetal em Sistemas Integrados, UFPR; ⁴Programa de Pós Graduação em Biologia Vegetal, Centro de Ciências Biológicas/UFSC, Florianópolis, SC, Brazil; ⁵ Departamento de Botânica, Centro de Ciências Biológicas, UFSC, Florianópolis.

*cassiano@epagri.sc.gov.br

The natural pastures constitute the main forage substrate in Santa Catarina highlands. Presents an inestimable environmental importance value due to the the diverse number of grasses and legumes species. Despite the importance of the natural pastures, few studies exists about phytosociology on this region. The aim of the study was characterize the plant community of natural pastures in the municipalities of Lages, São Joaquim, Painei, Capão Alto and Bom Jardim da Serra, and in a naturalized pasture in São José do Cerrito. It was evaluated the phytosociology in a ranch property of each municipality to represent the local physiognomy. Five sample units (SU) of 1 m² were established in each local in January 2014. It was calculated the values of species presence/absence, absolute percentage of soil coverage and relative coverage. The Shannon Index was calculated using software "R" (vegan package). The survey identified 173 species, the greater species richness were observed in Lages and Capão Alto with 30 species / SU, Bom Jardim da Serra and Painei presented 28 species / SU, São Joaquim presented 24 species / SU. The lowest richness with 13 species / UA was observed in a naturalized pasture in municipality of São José do Cerrito. Shannon diversity index for Lages was 2,885, Capão Alto 2,830, Bom Jardim da Serra presented an index of 2,781, Painei 2,834, São Joaquim was 2,640, and finally, São José do Cerrito was 1,930. There was an equitable distribution among species, with a low percentage of relative soil coverage of each specie. The species: *Baccharis crispa* Spreng., *Paspalum plicatulum* Michx., *Piptochaetium montevidense* (Spreng.) Parodi, *Gamochaeta americana* (Mill.) Wedd., *Schizachyrium tenerum* Nees, *Chevreulia sarmentosa* (Pers.) Blake, *Axonopus compressus* (Sw.) P. Beauv., *Baccharis pentodonta* Malme, *Eragrostis polytricha* Nees; and *Paspalum notatum* Flügge; composes an absolute soil coverage of 22.51%. There was 2.88% of uncovered soil, and 3.53% of dead material. The natural pastures of the Santa Catarina highlands in different locals presented similar diversities, while naturalized pastures presents a lower diversity index and richness.

Key Words: cattle, floristic diversity, diversity index

Acknowledgements: Funding supported by the FAPESC (process 16.783/2011-5)