

研究简报

## 内蒙古退化草原8种植物叶结构对禁牧的响应

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**摘要** 在内蒙古典型草原地带, 选择有代表性的羊草+大针茅群落的放牧退化演替变型—冷蒿+糙隐子草群落实行封育禁牧。并对未禁牧群落(退化群落)、禁牧7a的群落和禁牧20a群落的8种主要植物叶的解剖结构特征进行比较研究, 以探讨植物叶结构对禁牧的响应。结果表明: 禁牧恢复演替后叶片角质层厚度和叶肉细胞密度降低、5种植物叶片变薄、星毛委陵菜上表皮细胞明显变小, 植物叶旱生特征减弱。但草地退化后植物叶又不完全表现为旱化或加强旱化的特性。从植物叶结构的变化中可见星毛委陵菜具有较强的耐牧性。对于植物叶结构其它指标, 则不存在明显的一致性变化趋势。

**关键词** [退化草原](#); [叶结构](#); [禁牧](#); [响应](#)

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## Response of leaf structures of 8 plants to grazing prohibition in degraded grassland of Inner Mongolia

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**Abstract** Representative communities of *Artemisia frigida* + *Cleistogenes squarrosa* which was the succession aberration of *Leymus chinensis* + *Stipa grandis* community were fenced in the Inner Mongolia typical steppe in 1983 and 1996 in order to observe the community succession processes. Eight predominant plants were collected from unfenced community (degenerated community), community fenced for 7 years and community fenced for 20 years. Leaf anatomical structures were compared to reveal the responses of plant leaf structures to grazing prohibition. It was showed: after fencing, the cuticle thickness, mesophyll cell density of leaves and leaf thickness of 5 species were lower than those before fencing, upper epidermis cells of *Potentilla acaulis* in community fenced for 20 years was smaller than those in degenerated community and in community fenced for 7 years, and the xerophytic characters of the leaves weakened. Plant leaves in degraded community did not fully reflect the xerophytic characters, or strengthened xerophytic characters. Based on the changes of leaf structures, it could be seen that tolerance to grazing in *Potentilla acaulis* was higher than those in the other species. Other indicators of leaf structure did not show the same trends.

**Key words** [grassland](#) [degradation](#) [leaf structure](#) [grazing prohibition](#) [response](#)

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