

# 植物生态学报

Zhiwu Shengtai Xuebao

2010年7月 第34卷 第7期

## 目次

### 研究论文

- 761 基于多元回归树的常绿阔叶林群丛数量分类——以古田山24公顷森林样地为例  
赖江山 米湘成 任海保 马克平
- 770 三江源地区人工草地的生态系统CO<sub>2</sub>净交换、总初级生产力及其影响因子  
吴力博 古松 赵亮 徐世晓  
周华坤 冯超 徐维新 李英年  
赵新全 唐艳鸿
- 781 内蒙古草原生态系统净初级生产力及其与气候的关系  
龙慧灵 李晓兵 黄玲梅 王宏  
魏丹丹
- 792 辽河三角洲植被生产功能的年际变化及其驱动因子分析  
汲玉河 周广胜
- 800 晋西黄土高原丘陵沟壑区清水河流域径流对土地利用与气候变化的响应  
唐丽霞 张志强 王新杰 王盛萍  
查同刚
- 811 自组织特征映射网络在北京松山自然保护区山地草甸数量分析中的应用  
苏日古嘎 张金屯 田世广 张钦弟

- 张斌 程佳佳 刘素军
- 819 土壤水分对黄土高原主要造林树种细根表面积季节动态的影响  
王迪海 赵忠 李剑
- 827 花柱卷曲性的维持及功能性别特化  
孙杉 操国兴 罗燕江 李庆军
- 839 文冠果一、二年生植株根系内生菌的分离、鉴定和固氮活性  
张烨 廖怡 陈尚武 马会勤
- 845 利用高光谱参数反演水稻叶片类胡萝卜素含量  
杨杰 田永超 姚霞 曹卫星  
朱艳

### 综述

- 855 植物水淹适应与碳水化合物的相关性  
施美芬 曾波 申建红 类淑桐  
朱智 刘建辉
- 867 两性花的雄蕊运动: 多样性和适应意义  
任明迅
- 876 豆科植物共生结瘤的分子基础和调控研究进展  
丑敏霞 魏新元

封面说明: 北京松山自然保护区的山地草甸景观。苏日古嘎等在此开展了应用自组织特征映射网络于山地草甸数量分析的研究(本期811-818页)。(张斌摄)

# Chinese Journal of Plant Ecology

July 2010 Vol. 34 No. 7

## CONTENTS

### Research Articles

- 761 Numerical classification of associations in subtropical evergreen broad-leaved forest based on multivariate regression trees—a case study of 24 hm<sup>2</sup> Gutianshan forest plot in China  
LAI Jiang-Shan, MI Xiang-Cheng, REN Hai-Bao and MA Ke-Ping
- 770 Variation in net CO<sub>2</sub> exchange, gross primary production and its affecting factors in the planted pasture ecosystem in Sanjiangyuan Region of the Qinghai-Tibetan Plateau of China  
WU Li-Bo, GU Song, ZHAO Liang, XU Shi-Xiao, ZHOU Hua-Kun, FENG Chao, Xu Wei-Xin, LI Ying-Nian, ZHAO Xin-Quan and TANG Yan-Hong
- 781 Net primary productivity in grassland ecosystem in Inner Mongolia and its relationship with climate  
LONG Hui-Ling, LI Xiao-Bing, HUANG Ling-Mei, WANG Hong and WEI Dan-Dan
- 792 Inter-annual change of vegetation productivity and its driving factors in the Liaohe Delta, northeastern China  
JI Yu-He and ZHOU Guang-Sheng
- 800 Streamflow response to climate and landuse changes in Qingshui River watershed in the loess hilly-gully region of Western Shanxi Province, China  
TANG Li-Xia, ZHANG Zhi-Qiang, WANG Xin-Jie, WANG Sheng-Ping and ZHA Tong-Gang
- 811 Application of self-organizing map to quantitative analysis of mountain meadow in the Songshan Nature Reserve of Beijing, China  
SURI Guga, ZHANG Jin-Tun, TIAN Shi-Guang, ZHANG Qin-Di, ZHANG Bin, CHENG Jia-Jia and

LIU Su-Jun

- 819 Impact of soil moisture on the seasonal dynamics of fine root surface area of major afforestation tree species on China's Loess Plateau  
WANG Di-Hai, ZHAO Zhong and LI Jian
- 827 Maintenance and functional gender specialization of flexistylus  
SUN Shan, CAO Guo-Xing, LUO Yan-Jiang and LI Qing-Jun
- 839 Isolation, preliminary identification and nitrogen-fixation activity of endophytes from roots of one- and two-year-old *Xanthoceras sorbifolia* plants  
ZHANG Ye, LIAO Yi, CHEN Shang-Wu and MA Hui-Qin
- 845 Estimating leaf carotenoid content with hyperspectral parameters in rice  
YANG Jie, TIAN Yong-Chao, YAO Xia, CAO Wei-Xing and ZHU Yan

### Review

- 855 A review of the correlation of flooding adaptability and carbohydrates in plants  
SHI Mei-Fen, ZENG Bo, SHEN Jian-Hong, LEI Shu-Tong, ZHU Zhi and LIU Jian-Hui
- 867 Stamen movements in hermaphroditic flowers: diversity and adaptive significance  
REN Ming-Xun
- 876 Review of research advancements on the molecular basis and regulation of symbiotic nodulation of legumes  
CHOU Min-Xia and WEI Xin-Yuan

---

**Cover illustration:** The landscape of mountain meadow in the Songshan Nature Reserve in Beijing, where Suriguga *et al.* performed a research on application of self-organizing map to quantitative analysis of mountain meadow (Pages 811–818 of this issue). (Photographed by ZHANG Bin)