

ISSN 1000-0933

CN 11-2031/Q

# 生态学报

## Acta Ecologica Sinica

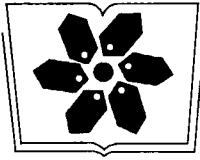


第32卷 第13期 Vol.32 No.13 **2012**

中国生态学学会  
中国科学院生态环境研究中心  
科学出版社

主办  
出版





# 生态学报

(SHENGTAI XUEBAO)

中国科学院科学出版基金资助出版

第 32 卷 第 13 期 2012 年 7 月 (半月刊)

## 目 次

砂质潮间带自由生活海洋线虫对缺氧的响应——微型受控生态系研究.....	华 尔, 李 佳, 董 洁, 等 (3975)
植物种群自疏过程中构件生物量与密度的关系 .....	黎 磊, 周道玮, 盛连喜 (3987)
基于景观感知敏感度的生态旅游地观光线路自动选址.....	李继峰, 李仁杰 (3998)
基于能值的沼气农业生态系统可持续发展水平综合评价——以恭城县为例.....	杨 谨, 陈 彬, 刘耕源 (4007)
内蒙古荒漠草原植被盖度的空间异质性动态分析.....	颜 亮, 周广胜, 张 峰, 等 (4017)
典型草地的土壤保持价值流量过程比较.....	裴 厦, 谢高地, 李士美, 等 (4025)
长沙市马尾松人工林生态系统碳储量及其空间分布.....	巫 涛, 彭重华, 田大伦, 等 (4034)
厦门市七种药用植物根围 AM 真菌的侵染率和多样性 .....	姜 攀, 王明元 (4043)
Cd、低 Pb/Cd 下冬小麦幼苗根系分泌物酚酸、糖类及与根际土壤微生物活性的关系 .....	贾 夏, 董岁明, 周春娟 (4052)
凉水保护区土壤产类漆酶-多铜氧化酶细菌群落结构 .....	赵 丹, 谷惠琦, 崔岱宗, 等 (4062)
盐渍化土壤根际微生物群落及土壤因子对 AM 真菌的影响.....	卢鑫萍, 杜 茜, 闫永利, 等 (4071)
菌丝接种解磷细菌 <i>Bacillus megaterium</i> C4 对土壤有机磷矿化和植物吸收的影响.....	张 林, 丁效东, 王 菲, 等 (4079)
闽江河口不同河段芦苇湿地土壤碳氮磷生态化学计量学特征.....	王维奇, 王 纯, 曾从盛, 等 (4087)
高山森林三种细根分解初期微生物生物量动态.....	武志超, 吴福忠, 杨万勤, 等 (4094)
模拟降水对古尔班通古特沙漠生物结皮表观土壤碳通量的影响 .....	吴 林, 苏延桂, 张元明 (4103)
铁皮石斛组培苗移栽驯化过程中叶片光合特性、超微结构及根系活力的变化 .....	濮晓珍, 尹春英, 周晓波, 等 (4114)
不同产量水平旱地冬小麦品种干物质累积和转移的差异分析.....	周 玲, 王朝辉, 李富翠, 等 (4123)
基于作物模型的低温冷害对我国东北三省玉米产量影响评估.....	张建平, 王春乙, 赵艳霞, 等 (4132)
黄土高原 1961—2009 年参考作物蒸散量的时空变异.....	李 志 (4139)
莫莫格湿地芦苇对水盐变化的生理生态响应.....	邓春暖, 章光新, 李红艳, 等 (4146)
不同蚯蚓采样方法对比研究.....	范如芹, 张晓平, 梁爱珍, 等 (4154)
亚洲玉米螟成虫寿命与繁殖力的地理差异.....	涂小云, 陈元生, 夏勤雯, 等 (4160)
黑河上游天然草地蝗虫空间异质性与分布格局.....	赵成章, 李丽丽, 王大为, 等 (4166)
苦瓜叶乙酸乙酯提取物对斜纹夜蛾实验种群的抑制作用.....	骆 颖, 凌 冰, 谢杰锋, 等 (4173)
长江口中国花鲈食性分析.....	洪巧巧, 庄 平, 杨 刚, 等 (4181)
基于线粒体控制区序列的黄河上游厚唇裸重唇鱼种群遗传结构.....	苏军虎, 张艳萍, 姜忠玉, 等 (4191)
镉暴露对黑斑蛙精巢 ROS 的诱导及其蛋白质氧化损伤作用机理 .....	曹 慧, 施蔡雷, 贾秀英 (4199)
北方草地牛粪中金龟子的多样性.....	樊三龙, 方 红, 高传部, 等 (4207)
合肥秋冬季茶园天敌对假眼小绿叶蝉和茶蚜的空间跟随关系.....	杨 林, 郭 骅, 毕守东, 等 (4215)
植被、海拔、人为干扰对大中型野生动物分布的影响——以九寨沟自然保护区为例.....	张 跃, 雷开明, 张语克, 等 (4228)
基于社会网络分析法的生态工业园典型案例研究.....	杨丽花, 佟连军 (4236)
基于生命周期的户用沼气系统可用能核算——以广西恭城瑶族自治县为例.....	齐 静, 陈 彬, 戴 婧, 等 (4246)
<b>专论与综述</b>	
水文情势与盐分变化对湿地植被的影响研究综述 .....	章光新 (4254)
松嫩碱化草甸土壤种子库格局、动态研究进展 .....	马红媛, 梁正伟, 吕丙盛, 等 (4261)
一种新的景观扩张指数的定义与实现 .....	武鹏飞, 周德民, 官辉力 (4270)
<b>研究简报</b>	
华山新麦草光合特性对干旱胁迫的响应.....	李 倩, 王 明, 王雯雯, 等 (4278)
美丽海绵提取物防污损作用.....	曹文浩, 严 涛, 刘永宏, 等 (4285)

期刊基本参数: CN 11-2031/Q \* 1981 \* m \* 16 \* 306 \* zh \* P \* ¥70.00 \* 1510 \* 37 \* 2012-07



封面图说: 涵养水源——在长白山南坡的峭壁上, 生长在坡面上的森林所涵养的水源还在汨汨地往下流个不停, 深红色的落叶掉在了苔藓上, 这里已经是长白山的深秋了。虽然雨季已经过去很久了, 但是林下厚厚的枯枝落叶层、腐殖质层、苔藓草本层所涵养的水分还在不间断地流淌, 细细的水线在壁下汇成了溪、汇成了河。涵养水源是森林的主要生态功能之一。

彩图提供: 陈建伟教授 北京林业大学 E-mail: cites.chenjw@163.com

CONTENTS

Responses of sandy beach nematodes to oxygen deficiency: microcosm experiments ..... HUA Er, LI Jia, DONG Jie, et al (3975)

Allometric relationship between mean component biomass and density during the course of self-thinning for *Fagopyrum esculentum* populations ..... LI Lei, ZHOU Daowei, SHENG Lianxi (3987)

Automatic site selection of sight-seeing route in ecotourism destinations based on landscape perception sensitivity ..... LI Jifeng, LI Renjie (3998)

Emergy evaluation for sustainability of Biogas-linked agriculture ecosystem: a case study of Gongcheng county ..... YANG Jin, CHEN Bin, LIU Gengyuan (4007)

Spatial heterogeneity of vegetation coverage and its temporal dynamics in desert steppe, Inner Mongolia ..... YAN Liang, ZHOU Guangsheng, ZHANG Feng, et al (4017)

Soil conservation value flow processes of two typical grasslands ..... PEI Sha, XIE Gaodi, LI Shimei, et al (4025)

Spatial distribution of carbon storage in a 13-year-old *Pinus massoniana* forest ecosystem in Changsha City, China ..... WU Tao, PENG Chonghua, TIAN Dalun, et al (4034)

Colonization rate and diversity of AM fungi in the rhizosphere of seven medicinal plants in Xiamen ..... JIANG Pan, WANG Mingyuan (4043)

Effects of Cd, Low Concentration Pb/Cd on the contents of phenolic acid and simple glucides exuding from winter wheat seedlings root and the relationship between them and rhizosphere soil microbial activity ..... JIA Xia, DONG Suiming, ZHOU Chunjuan (4052)

The community structure of laccase-like multicopper oxidase-producing bacteria in soil of Liangshui Nature Reserve ..... ZHAO Dan, GU Huiqi, CUI Daizong, et al (4062)

Effects of soil rhizosphere microbial community and soil factors on arbuscular mycorrhizal fungi in different salinized soils ..... LU Xinping, DU Qian, YAN Yongli, et al (4071)

The effects of inoculation with phosphate solubilizing bacteria *Bacillus megaterium* C4 in the AM fungal hyphosphere on soil organic phosphorus mineralization and plant uptake ..... ZHANG Lin, DING Xiaodong, WANG Fei, et al (4079)

Soil carbon, nitrogen and phosphorus ecological stoichiometry of *Phragmites australis* wetlands in different reaches in Minjiang River estuary ..... WANG Weiqi, WANG Chun, ZENG Congsheng, et al (4087)

Dynamics of soil microbial biomass during early fine roots decomposition of three species in alpine region ..... WU Zhichao, WU Fuzhong, YANG Wanqin, et al (4094)

Effects of simulated precipitation on apparent carbon flux of biologically crusted soils in the Gurbantunggut Desert in Xinjiang, Northwestern China ..... WU Lin, SU Yangui, ZHANG Yuanming (4103)

Changes in photosynthetic properties, ultrastructure and root vigor of *Dendrobium candidum* tissue culture seedlings during transplantation ..... PU Xiaozhen, YIN Chunying, ZHOU Xiaobo, et al (4114)

Analysis of dry matter accumulation and translocation for winter wheat cultivars with different yields on dryland ..... ZHOU Ling, WANG Zhaohui, LI Fucui, et al (4123)

Impact evaluation of low temperature to yields of maize in Northeast China based on crop growth model ..... ZHANG Jianping, WANG Chunyi, ZHAO Yanxia, et al (4132)

Spatiotemporal variations in the reference crop evapotranspiration on the Loess Plateau during 1961—2009 ..... LI Zhi (4139)

Eco-physiological responses of *Phragmites australis* to different water-salt conditions in Momoge Wetland ..... DENG Chunnuan, ZHANG Guangxin, LI Hongyan, et al (4146)

Comparative study of different earthworm sampling methods ..... FAN Ruqin, ZHANG Xiaoping, LIANG Aizhen, et al (4154)

Geographic variation in longevity and fecundity of the Asian corn borer, *Ostrinia furnacalis* Guenée (Lepidoptera: Crambidae) ..... TU Xiaoyun, CHEN Yuansheng, XIA Qinwen, et al (4160)

Analysis on grasshopper spatial heterogeneity and pattern of natural grass in upper reaches of Heihe ..... ZHAO Chengzhang, LI Lili, WANG Dawei, et al (4166)

Inhibition effects of ethyl acetate extracts of *Momordica charantia* leaves on the experimental population of *Spodoptera litura* ..... LOU Ying, LING Bing, XIE Jiefeng, et al (4173)

Feeding habits of *Lateolabrax maculatus* in Yangtze River estuary ..... HONG Qiaoqiao, ZHUANG Ping, YANG Gang, et al (4181)

Genetic structure of *Gymnodiptychus pachycheilus* from the upper reaches of the Yellow River as inferred from mtDNA control region ..... SU Junhu, ZHANG Yanping, LOU Zhongyu, et al (4191)

Toxicity mechanism of Cadmium-induced reactive oxygen species and protein oxidation in testes of the frog *Rana nigromaculata* ..... CAO Hui, SHI Cailei, JIA Xiuying (4199)

The diversity of scarab beetles in grassland cattle dung from North China ..... FAN Sanlong, FANG Hong, GAO Chuanbu, et al (4207)

Spatial relationships among *Empoasca vitis* (Gothe) and *Toxoptera aurantii* (Boyer) and natural enemies in tea gardens of autumn-winter season in Hefei suburban ..... YANG Lin, GUO Hua, BI Shoudong, et al (4215)

Effects of vegetation, elevation and human disturbance on the distribution of large- and medium-sized wildlife: a case study in Jiuzhaigou Nature Reserve ..... ZHANG Yue, LEI Kaiming, ZHANG Yuke, et al (4228)

Research of typical EIPs based on the social network analysis ..... YANG Lihua, TONG Lianjun (4236)

Exergy-based life cycle accounting of household biogas system: a case study of Gongcheng, Guangxi ..... QI Jing, CHEN Bin, DAI Jing, et al (4246)

**Review and Monograph**

The effects of changes in hydrological regimes and salinity on wetland vegetation: a review ..... ZHANG Guangxin (4254)

Advances in research on the seed bank of a saline-alkali meadow in the Songnen Plain ..... MA Hongyuan, LIANG Zhengwei, LÜ Bingsheng, et al (4261)

A new landscape expansion index: definition and quantification ..... WU Pengfei, ZHOU Demin, GONG Huili (4270)

**Scientific Note**

Response of photosynthetic characteristics of *Psathyrostachys huashanica* Keng to drought stress ..... LI Qian, WANG Ming, WANG Wenwen, et al (4278)

The antifouling activities of *Callyspongia* sponge extracts ..... CAO Wenhao, YAN Tao, LIU Yonghong, et al (4285)