



生态学报

ACTA ECOLOGICA SINICA

第45卷 第17期 Vol.45 No.17 2025 ISSN 1000-0933 CN 11-2031/Q

中国生态学学会
中国科学院生态环境研究中心

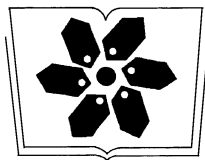
主办



科学出版社
Science Press

出版

方知库
Eco-Environmental
Knowledge Web



中国科学院科学出版基金资助出版

生态学报

(SHENGTAI XUEBAO)

第 45 卷 第 17 期 2025 年 9 月 (半月刊)

目 次

专论与综述

- 丛枝菌根真菌调控土壤氮损失研究进展..... 郑 翔,何莹莹,张 萍,等 (8267)
- 入侵植物-土壤反馈驱动机制及多维尺度研究进展 齐宇涵,赵梦欣,谭鑫源,等 (8285)
- 土壤微生物调控生态系统碳汇功能研究进展..... 黄云鑫,杨 阳,张 鹏,等 (8297)

研究论文

- 贺兰山东坡不同海拔典型植被带灌木种群生态位、种间联结及群落稳定性特征 刘海珠,周金星,陆子淳,等 (8311)
- 基于林分郁闭度的大兴安岭地区森林干扰及其影响因素研究..... 孙乡楠,曾伟生,陈新云,等 (8324)
- 秦岭南麓华山松和油松气候变化响应与多情景模拟..... 刘 昶,蔡志同,鲁 艺,等 (8335)
- 梭梭生长轮纹理特征提取分析..... 王兴豪,韩忠玲,刘志刚,等 (8349)
- 小冰期以来洱海地区植被演变过程与特征..... 费颖莹,钟海璐,杨 暘,等 (8361)
- 喀斯特山地城市遗存山体植物多样性及其生境斑块面积效应..... 柳书俊,王志杰,代 磊,等 (8376)
- 不同乡土草种补播对荒漠草原植物群落特征和种群生态位的影响..... 龚 昕,许冬梅,妥海东,等 (8389)
- 2001—2022 年饶河流域森林净初级生产力总量空间分异及其影响因素 陈卓灵,朱君瑶,何庆港,等 (8405)
- 1980—2022 年全球气候格局变化对植被生产力的影响 朱鸿娟,李传华,刘 翠 (8416)
- 贺兰山东坡典型植被水分利用策略..... 马文昌,庞丹波,吴梦瑶,等 (8426)
- 台风干扰对东南沿海亚热带常绿阔叶林土壤氮组分的即时效应..... 吕乃月,陈宇彤,林海鹏,等 (8439)
- 混播草地不同部位对陕北黄土坡面侵蚀过程的调控效应..... 陈 浩,王 博,王豆豆,等 (8449)
- 七老图山人工林林分结构与土壤因子对林下草本物种多样性的影响..... 温 馨,张妍妍,张志杰,等 (8465)
- 不同种类丛枝菌根真菌接种对杉木幼苗氮磷养分吸收和流失的影响..... 祝嘉新,雷 梅,黄智军,等 (8474)
- 重度火灾对缙云山林地持水力的影响..... 冷佳欣,刘春红,王轶浩,等 (8485)
- 草地初步恢复后的合理利用率..... 涂威亮,薛建国,王建柱,等 (8498)
- 基于多源特征融合与草原分区的新疆草地类型分布制图及其时空变化分析..... 辛建辉,杨秀春,张 敏,等 (8512)
- 中国北方荒漠草原长期围栏封育恢复效应及其环境依赖性..... 张艺斐,王 兴,潘海珠,等 (8529)
- 生草对果园增肥、固碳生态效益的影响整合分析 任浩奇,李 彤,杨 荣,等 (8544)
- 不同利用方式温性草甸草原土壤碳氮磷化学计量比高光谱反演..... 袁淑雅,贺 晶,刁兆岩,等 (8555)
- 九寨沟工程创面生态修复区植被-土壤微生物协同恢复效应 修宇鑫,裴向军,王 岩,等 (8570)
- 复水后历史干旱对南亚亚热带常绿阔叶林土壤微生物及其胞外酶活性的遗留效应..... 曾江涛,韩诗慧,何 或,等 (8583)
- 亚热带人工林凋落物和土壤层水源涵养功能..... 农海勤,陆明路,易弘韬,等 (8599)

春季休牧对东祁连山高寒草甸土壤胞外酶活性和微生物代谢限制的影响.....	肖 红,景媛媛,徐长林,等 (8614)
共同富裕背景下生态移民搬迁对农户多维相对贫困的影响——以大熊猫国家公园秦岭片区为例.....	庞贵芳,李 敏,徐苗苗,等 (8627)
成都市生态旅游舒适性:空间格局演变与组态路径	张 娜,许瑶文,赵武生,等 (8642)
基于潜在供给与实际使用的生态资产价值评估——以河池市为例.....	潘广宇,肖 燚,林子雁,等 (8657)
耕地利用隐性转型与农业碳排放时空耦合协调及其影响因素——以长江经济带为例.....	杨 斌,田佳琦,武越天,等 (8672)
长三角生态保护红线区人为干扰风险空间分异特征.....	刘 静,张 琨,邹长新,等 (8687)
多尺度协同的生态网络构建与层级优化——以浙江省东阳市为例.....	原 昊,丁美辰,孙依巧,等 (8700)
江西省生态系统服务对城镇化的响应模拟.....	何 蕾,李梦可,王诗雅,等 (8716)
北方城市社区绿地景观格局特征及其影响因素.....	范俊涛,李硕涵,张文龙,等 (8729)
树荫遮挡的低层社区屋顶光伏效率及树板降碳分析.....	赵振宇,贾世桐 (8744)
学术信息与动态	
基于文献计量关系价值的人地关系重构研究进展.....	陈君茹,高培超,叶思菁,等 (8754)
基于文献计量的城市适应气候变化研究进展.....	张雅京,唐立娜,刘璎萱,等 (8767)
基于文献计量的道路生态影响研究进展.....	赵佳玮,黄 麟 (8781)

期刊基本参数:CN 11-2031/Q * 1981 * m * 16 * 526 * zh * P * ¥ 120.00 * 1510 * 39 * 2025-09



封面彩图提供:徐卫华 中国科学院生态环境研究中心 E-mail: xuweihua@rcees.ac.cn

ACTA ECOLOGICA SINICA Vol.45, No.17 September, 2025 (Semimonthly)

CONTENTS

Review and Monograph

- Progress in studies of arbuscular mycorrhizal fungi regulate soil nitrogen loss ZHENG Xiang, HE Yingying, ZHANG Ping, et al (8267)
- Invasive plant-soil feedback: driving mechanisms and multidimensional scale research progress QI Yuhua, ZHAO Mengxin, TAN Xinyuan, et al (8285)
- Review on soil microbes regulating ecosystem carbon sink function HUANG Yunxin, YANG Yang, ZHANG Peng, et al (8297)

Research Paper

- Niche differentiation, interspecific association and stability characteristics of shrub communities in typical vegetation zones at different altitudes on the eastern slope of Helan Mountain LIU Haizhu, ZHOU Jinxing, LU Zichun, et al (8311)
- Study on the forest disturbance in Daxinganling and its influence factors based on crown cover SUN Xiangnan, ZENG Weisheng, CHEN Xinyun, et al (8324)
- Climate change response and multi-scenario simulation of *Pinus armandii* and *Pinus tabulaeformis* at the Southern Foothills of the Qinling Mountains LIU Chang, CAI Zhitong, LU Yi, et al (8335)
- Extraction and analysis of growth ring texture characteristics of *Haloxylon ammodendron* WANG Xinghao, HAN Zhongling, LIU Zhigang, et al (8349)
- Trajectory and characteristics of vegetation change in Erhai area since the Little Ice Age FEI Yingying, ZHONG Hailu, YANG Yang, et al (8361)
- The area effect of habitat patches on plant diversity in remnant mountains in karst mountainous cities LIU Shujun, WANG Zhijie, DAI Lei, et al (8376)
- Effects of reseeding different native grasses on plant community characteristics and population niche in desert steppe GONG Xin, XU Dongmei, TUO Haidong, et al (8389)
- Spatial distribution and influencing factors of multi-year NPP accumulation and Anomalous Points in Raohe River Basin from 2001 to 2022 CHEN Zhuoling, ZHU Junyao, HE Qinggang, et al (8405)
- Impact of climate pattern changes from 1980 to 2022 on vegetation productivity ZHU Hongjuan, LI Chuanhua, LIU Cui (8416)
- Water utilization strategies of typical vegetation on the eastern slope of Helan Mountain MA Wenchang, PANG Danbo, WU Mengyao, et al (8426)
- The immediate effect of typhoon disturbance on soil nitrogen fractions in a subtropical coastal broadleaf forest LÜ Naiyue, CHEN Yutong, LIN Haipeng, et al (8439)
- Regulation effects of the roots, stems, and leaves of mixed grassland on erosion processes of loess slope in northern Shaanxi Province CHEN Hao, WANG Bo, WANG Doudou, et al (8449)
- Effects of stand structure and soil factors on understory herb diversity in Qilaotu Mountain plantation WEN Xin, ZHANG Yanyan, ZHANG Zhijie, et al (8465)
- Effects of different types of arbuscular mycorrhizal fungi inoculation on nitrogen and phosphorus nutrient uptake and losses of *Cunninghamia lanceolata* seedlings ZHU Jiaxin, LEI Mei, HUANG Zhijun, et al (8474)
- Research on the influence of severe fire on the water-holding capacity of forest land in Jinyun Mountain LENG Jiaxin, LIU Chunhong, WANG Yihao, et al (8485)
- Reasonable utilization rate of grassland in early stage of recovery TU Qiliang, XUE Jianguo, WANG Jianzhu, et al (8498)
- Mapping of grassland classes distribution in Xinjiang based on multi-source feature fusion and grassland zoning and analysis of their spatial and temporal changes XIN Jianhui, YANG Xiuchun, ZHANG Min, et al (8512)
- Long-term enclosure restoration effects and their environmental dependencies in desert steppes of northern China ZHANG Yifei, WANG Xing, PAN Haizhu, et al (8529)
- Effect of grassing on the fertilization and carbon sequestration ecological benefits of orchards: a meta-analysis REN Haoqi, LI Tong, YANG Rong, et al (8544)

- Hyperspectral inversion of soil carbon, nitrogen, and phosphorus stoichiometry in temperate meadow steppes under different grassland utilization methods YUAN Shuya, HE Jing, DIAO Zhaoyan, et al (8555)
- Synergistic restoration effect of vegetation and soil microorganisms in the wound ecological restoration area of Jiuzhaigou Project XIU Yuxin, PEI Xiangjun, WANG Yan, et al (8570)
- Legacy effects of historical drought on soil microbial communities and extracellular enzyme activities in a South Asian subtropical evergreen broad-leaved forest after post-rewetting ZENG Jiangtao, HAN Shihui, HE Yu, et al (8583)
- Water conservation function of litter and soil layer in subtropical artificial forests NONG Haiqin, LU Minglu, YI Hongtao, et al (8599)
- The effects of spring rest-grazing on soil extracellular enzyme activities and microbial metabolic limitation in alpine meadows of the Eastern Qilian Mountains XIAO Hong, JING Yuanyuan, XU Changlin, et al (8614)
- The impact of ecological migration on multidimensional relative poverty of farmers under the background of common prosperity: a case of the Qinling Area of the Giant Panda National Park, China PANG Guifang, LI Min, XU Miaomiao, et al (8627)
- Exploring ecotourism comfort in Chengdu: spatial pattern evolution and configuration path analysis ZHANG Na, XU Yaowen, ZHAO Wusheng, et al (8642)
- Evaluation of ecosystem assets based on potential supply and actual use: a case study in Hechi City PAN Guangyu, XIAO Yi, LIN Ziyang, et al (8657)
- Spatiotemporal characteristics and influence factors of coupling coordination between recessive farmland use transition and agricultural carbon emissions: a case study of the Yangtze River Economic Belt in China YANG Bin, TIAN Jiaqi, WU Yuetian, et al (8672)
- Spatial differentiation characteristics of anthropogenic disturbance risk in ecological conservation redlines in the Yangtze River Delta LIU Jing, ZHANG Kun, ZOU Changxin, et al (8687)
- Construction and hierarchical optimization of multi-scale ecological network: a case study of Dongyang, Zhejiang Province YUAN Hao, DING Meichen, SUN Yiqiao, et al (8700)
- Response and simulation of ecosystem services to urbanization in Jiangxi Province HE Lei, LI Mengke, WANG Shiya, et al (8716)
- Landscape pattern characteristics and influencing factors analysis of urban community green space in northern China FAN Juntao, LI Shuohan, ZHANG Wenlong, et al (8729)
- Analysis of rooftop photovoltaic efficiency and tree-panel carbon reduction in low rise communities under shading ZHAO Zhenyu, JIA Shitong (8744)

《生态学报》

Acta Ecologica Sinica

入选“中国科技期刊卓越行动计划”;入围“中国科协生态学领域高质量科技期刊 T1 区”

《生态学报》是由中国科学技术协会主管,中国生态学学会、中国科学院生态环境研究中心主办的生态学高级专业学术期刊,半月刊,主编傅伯杰院士。本刊坚持百花齐放、百家争鸣,产生于科学性、立足于学术性、着眼于实践性、服务于社会性的办刊宗旨,依靠和团结广大生态学科研工作者,为生态学基础理论和应用研究搭建国内一流的学术交流平台,促进生态学研究深入发展,为我国培养和造就生态学科研人才,为国民经济建设和发展提供知识创新服务。

《生态学报》主要报道生态学重要基础理论和应用研究的原始创新性科研成果。所刊文章类型有:研究综述;研究论文;学术信息与动态;生态学新理论、新方法、新技术介绍;新书评介及开放实验室介绍等。《生态学报》为国内一流领军期刊;国际生态学 Q1 类期刊;期刊总被引频次居中国自然科学期刊第 1 名,影响因子居生态学学科中文期刊第 1 名;连年获得“中国百种杰出学术期刊”、“中国最具国际影响力学术期刊”和“期刊数字影响力 100 强”等荣誉称号;获得中国科协 TOP50 科技期刊和中国科协中文精品科技期刊建设项目资助;中国科协生态学领域高质量科技期刊 T1 区期刊;中国科技期刊卓越行动计划入选期刊。

办公室电话: 010-62941099

E-mail: shengtaixuebao@rcees.ac.cn

投稿网址: www.ecologica.cn

若未订阅,但需本刊某期纸质本,请联系科学出版社购买,电话:010-64017032,010-64017539

执行副主编 全元 责任编辑 刘昕 谢武双 于恩逸 朱晶莹 编辑 宗静 彭小琼 刘佩琼 孔红梅

生态学报
(SHENGTAI XUEBAO)
(半月刊 1981 年 3 月创刊)
第 45 卷 第 17 期 (2025 年 9 月)

ACTA ECOLOGICA SINICA
(Semimonthly, Started in 1981)
Vol.45 No.17 (September, 2025)

编辑 《生态学报》编辑部
地址:北京海淀区双清路 18 号
邮政编码:100085
电话:010-62941099
www.ecologica.cn
shengtaixuebao@rcees.ac.cn

Edited by Editorial board of
ACTA ECOLOGICA SINICA
Add:18, Shuangqing Street, Haidian, Beijing 100085, China
Tel:010-62941099
www.ecologica.cn
shengtaixuebao@rcees.ac.cn

主编 傅伯杰
主管 中国科学技术协会
主办 中国生态学学会
中国科学院生态环境研究中心
地址:北京海淀区双清路 18 号
邮政编码:100085

Editor-in-chief FU Bojie
Supervised by China Association for Science and Technology
Sponsored by Ecological Society of China
Research Center for Eco-environmental Sciences, CAS
Add:18, Shuangqing Street, Haidian, Beijing 100085, China

出版 科学出版社

Published by Science Press
Add:16 Donghuangchenggen North Street,
Beijing 100071, China

印刷 北京宝昌彩色印刷有限公司

Printed by Beijing Baochang Color Printing Co., Ltd.,
Beijing 100094, China

国内发行 全国各地邮局

Subscribe by Science Press
Tel:010-64017032, 010-64017539
E-mail: journal@cspg.net

邮发代号 82-7

国外发行 中国国际图书贸易总公司

发行代号 M670

订阅 科学出版社期刊发行部
010-64017032, 010-64017539
或扫描封底二维码

Domestic issue All Local Post Offices in China 82-7
Foreign issue China International Book Trading M670
Corporation
Add: P.O. Box 399 Beijing 100044, China

广告经营 京海工商广字第 8013 号



ISSN 1000-0933

CN 11-2031/Q

定价 120.00 元