

中华人民共和国教育部 主管  
西南大学 主办

NATURAL SCIENCE EDITION  
自然科学版  
JOURNAL OF SOUTHWEST UNIVERSITY

西南大學學報



中国科学引文数据库 (CSCD) 来源期刊 中文核心期刊  
中国精品科技期刊 中国高校百佳科技期刊  
RCCSE核心学术期刊 川渝一流科技期刊  
重庆市出版专项资金资助期刊

11 Vol. 44  
November 2022

## 目 次

### · 乡村振兴专题——乡村系统韧性 ·

- 重庆市乡村社会-生态系统恢复力测度与提升路径研究  
..... 张甜, 周宝同, 廖和平, 朱琳, 李东麟, 蔡智聪 (002)
- 西南丘陵山区乡村经济韧性测度及空间格局研究——以重庆市为例  
..... 李东麟, 廖和平, 郑萧, 朱琳, 杨胜强, 张甜 (013)
- 西南丘陵山区脱贫县农户居住满意度及影响因素分析——以贵州省独山县为例  
..... 蔡智聪, 廖和平, 洪惠坤, 王刚, 杨胜强, 周苗苗 (025)

### · 农业与生命科学 ·

- 长江上游水稻耐热性鉴定模型的构建与应用 ..... 焦颖瑞, 李玲依, 杨仕会, 胡健, 曹红宇, 刘雨菲, 雷震胜, 张红梅, 王兵兵, 霍帅宗, 杨正林, 李耘, 杨波, 何光华, 姚贺盛 (039)
- 基于水分亏缺指数的四川省水稻干旱灾害综合风险评价 ..... 金垚, 王锐婷, 邹雨伽, 杨德胜 (051)
- 凉山烟区烤烟品种间理化特征的差异及其与感官质量的关系 ..... 王鹏, 李玉宝, 龙飞, 吴勇, 邓家强, 龙建林, 武云杰, 叶协锋, 张明杰, 张弘蒙 (062)
- 三峡消落带落羽杉茎段外植体扩繁技术研究  
..... 陈雪梅, 陈春桦, 杨治华, 袁中勋, 陈张婷, 李昌晓 (070)
- 不同砧木对“爱媛 28 号”橘橙营养器官组织养分吸收利用的影响 ..... 何满, 田洋, 喻莹, 普金安, 张翠英, 何瑞杰, 郑永强, 吕强, 谢让金, 马岩岩, 邓烈, 易时来 (080)
- 豌豆蚜可溶型海藻糖酶基因克隆及 RNA 干扰效应  
..... 许静静, 常永梅, 任梦圆, 董艳玲, 李永强 (088)
- 基于转录组测序挖掘甜荞自交不亲和和相关功能基因 ..... 张建, 黄科慧, 刘洋, 唐恬, 吴银环, 王于栋, 陶建波, 王艺钢, 姜澳华, 刘佳琦, 方小梅, 易泽林 (099)

### · 经济研究 ·

- 重庆市农村人居环境整治的政策作用导向与提升路径 ..... 王成, 梁鑫, 徐爽 (114)
- 协同发展视角下“红色+”旅游空间格局与耦合发展——基于闽西革命老区的实证研究  
..... 李霄鹤, 张丹, 宋志琳, 林润泽, 王梓凌, 兰思仁 (124)
- 江西省 A 级旅游景区时空演变及影响因素研究 ..... 夏赞才, 汤君辉 (140)
- 河南省县域土地利用适宜度空间格局特征及分区调控  
..... 成筱溪, 李效顺, 和伟康, 倪衡, 赵子龙 (153)

### · 地球与环境科学 ·

- 基于水足迹理论的重庆市水资源利用时空分析与评价 ..... 宋继鹏, 程先, 刘秀华 (166)
- 河岸带生态修复策略研究——以重庆市广阳湾为例  
..... 林知远, 张晨辉, 丁鹏飞, 黄建, 王海洋 (179)

### · 工程与信息技术 ·

- 后疫情时代口袋公园的恢复性效应影响机制研究——基于视觉观感视角  
..... 吴天杰, 卓志雄, 曾真, 吴小刚 (190)
- 基于代理模型的消声器噪声和背压多目标优化 ..... 黄泽好, 黄荆荣 (201)
- 基于力矩陀螺的两轮单车辙车辆自平衡控制设计  
..... 陈宝, 胡斌, 但远宏, 黄剑鸣, 范一鸣, 罗诚 (209)
- 基于不确定性分析的不同制氢方式能源投入回报研究 ..... 郑玉华, 侯丹丹 (219)
- 4CJZ-1000 型自走式采茶机的设计与试验 ..... 王攀, 易文裕, 熊昌国, 程方平, 邓佳, 周彦君, 耿胤, 吴建 (228)
- 基于混合优化的双模深度学习文本分类方法 ..... 吴绪玲 (234)

# JOURNAL OF SOUTHWEST UNIVERSITY

## (NATURAL SCIENCE EDITION)

Vol. 44 No. 11

Total No. 335

Nov. 20, 2022

### CONTENTS

Study on the Measurement and Improvement Path of Resilience of Rural Social

Ecosystems in Chongqing ..... ZHANG Tian, ZHOU Baotong,  
LIAO Heping, ZHU Lin, LI Donglin, CAI Zhicong (002)

Study on the Measurement and Spatial Pattern of Rural Economic Resilience in Hilly and

Mountainous Areas of Southwest China —A Case Study of Chongqing ..... LI Donglin,  
LIAO Heping, ZHENG Xiao, ZHU Lin, YANG Shengqiang, ZHANG Tian (013)

Analysis of Farmer's Residential Satisfaction and Its Influencing Factors in

Poverty Alleviation Counties in Hilly and Mountainous areas of Southwest China  
—A Case Study of Dushan County, Guizhou Province ..... CAI Zhicong, LIAO Heping,  
HONG Huikun, WANG Gang, YANG Shengqiang, ZHOU Miaomiao (025)

Construction and Application of High-Temperature Tolerance Identification Model in

Upper Reaches of the Yangtze River in Rice (*Oryza sativa* L.) ..... JIAO Yingrui,  
LI Lingyi, YANG Shihui, HU Jian, CAO Hongyu, LIU Yufei, LEI Zhensheng,  
ZHANG Hongmei, WANG Bingbing, HUO Shuaizong, YANG Zhenglin,  
LI Yun, YANG Bo, HE Guanghua, YAO Hesheng (039)

Comprehensive Risk Assessment of Rice Drought Disaster in Sichuan Province Based on

Crop Water Deficit Index ..... JIN Yao, WANG Ruiting, ZOU Yujia, YANG Desheng (051)

Different Physicochemical Characteristics among Several Flue-Cured Tobacco Varieties

and Their Relationship with Sensory Quality in Liangshan Tobacco Growing Area  
..... WANG Peng, LI Yubao, LONG Fei, WU Yong, DENG Jiaqiang, LONG Jianlin,  
WU Yunjie, YE Xiefeng, ZHANG Mingjie, ZHANG Hongmeng (062)

Study on Propagation of Stem Explants (*Taxodium distichum*) for Vegetation

Restoration in Hydro-Fluctuating Zones of Three Gorges ..... CHEN Xuemei,  
CHEN Chunhua, YANG Zhihua, YUAN Zhongxun, CHEN Zhangting, LI Changxiao (070)

Effect of Different Rootstocks on Nutrient Absorption and Utilization of

Vegetative Organs in 'Ehime 28' ..... HE Man, TIAN Yang,  
YU Ying, PU Jinan, ZHANG Cuiying, HE Ruijie, ZHENG Yongqiang,  
LYU Qiang, XIE Rangjin, MA Yanyan, DENG Lie, YI Shilai (080)

Gene Cloning and RNA Interference Effects of Soluble Trehalase Gene of the Pea Aphid, <i>Acyrtosiphon pisum</i> .....	XU Jingjing, CHANG Yongmei, REN Mengyuan, DONG Yanling, LI Yongqiang (088)
Mining of Common Buckwheat Self-Incompatibility Related Gene Based on RNA-Seq .....	ZHANG Jian, HUANG Kehui, LIU Yang, TANG Tian, WU Yinhan, WANG Yudong, TAO Jianbo, WANG Yigang, JIANG Aohua, LIU Jiaqi, FANG Xiaomei, YI Zelin (099)
Policy Guidance and Improvement Path of Rural Human Settlement Environment Improvement in Chongqing .....	WANG Cheng, LIANG Xin, XU Shuang (114)
The Spatial Pattern and its Coupling Development of “Red Plus” Tourism from the Perspective of Collaborative Development ——An Empirical Study Based on the Old Revolutionary Base Areas in Western Fujian .....	LI Xiaohe, ZHANG Dan, SONG Zhilin, LIN Runze, WANG Ziling, LAN Siren (124)
Research on the Spatio-Temporal Evolution and Influencing Factors of A-level Tourist Attractions in Jiangxi Province .....	XIA Zancai, TANG Junhui (140)
Spatial Pattern Characteristics of Suitability of Land Use and Regional Regulation in Henan Province ...	CHENG Xiaoxi, LI Xiaoshun, HE Weikang, NI Heng, ZHAO Zilong (153)
Spatio-Temporal Analysis and Evaluation of Water Resources Utilization in Chongqing Based on Water Footprint Theory ...	SONG Jipeng, CHENG Xian, LIU Xiuhua (166)
Research on Ecological Restoration Strategies of Riparian Zone ——Taking Chongqing Guangyang Bay as An Example .....	LIN Zhiyuan, ZHANG Chenhui, DING Pengfei, HUANG Jian, WANG Haiyang (179)
Study on the Influence Mechanism of Restorative Effect of Pocket Park in Post Epidemic Era ——Based on Visual Perception .....	WU Tianjie, ZHUO Zhixiong, ZENG Zhen, WU Xiaogang (190)
Multi-Objective Optimization of Muffler Noise and Back Pressure Based on Surrogate Model .....	HUANG Zehao, HUANG Jingrong (201)
Design of Self-Balancing Control for Two-wheel Single Rut Vehicle Based on Moment Gyro .....	CHEN Bao, HU Bin, DAN Yuanhong, HUANG Jianming, FAN Yiming, LUO Cheng (209)
Research on EROI of Different Hydrogen Production Methods Based on Uncertainty Analysis .....	ZHENG Yuhua, HOU Dandan (219)
Design and Test of 4CJZ-1000 Self-propelled Tea Picker .....	WANG Pan, YI Wenyu, XIONG Changguo, CHENG Fangping, DENG Jia, ZHOU Yanjun, GENG Yin, WU Jian (228)
Dual-Mode Deep Learning Text Classification Method Based on Hybrid Optimization .....	WU Xuling (234)