



QK2030067



2020

ISSN 1004-8227  
CODEN CLZHFE

第29卷 第4期  
VOL.29 NO.4

# 长江流域资源与环境

RESOURCES AND ENVIRONMENT IN THE YANGTZE BASIN

中国科学院资源环境科学与技术局 主 办  
中国科学院武汉文献情报中心  
科学出版社 出 版

全国中文核心期刊  
中国科技论文统计源期刊  
中国科学引文数据库(CSCD)核心期刊  
中国人文社会科学核心期刊  
中文社会科学引文索引(CSSCI)来源期刊  
RCCSE 中国权威学术期刊

# 长江流域资源与环境(学报)

Resources and Environment in the Yangtze Basin  
(Changjiang Liuyu Ziyuan yu Huanjing)

第 29 卷第 4 期

2020 年 4 月

## 目次

### 区域可持续发展

|                                                  |                         |
|--------------------------------------------------|-------------------------|
| 产业集聚与城市用水强度：降低还是提升——基于中国 285 个地级及以上城市的经验分析 ..... | 闫桂权，何玉成，张晓恒，杨钰蓉(785)    |
| 省际物流业绿色全要素生产率时空差异及空间收敛性研究 .....                  | 李健，刘恋(799)              |
| 泛长三角地区经济发展-空间开发-环境演变耦合协调的时空格局演化 ...              | 高琳轩，管卫华，夏四友，乔文怡，杨星(813) |
| 江西省乡村休闲旅游地类型划分与空间格局研究 .....                      | 朱中原，王蓉，胡静，李亚娟(824)      |
| 基于百度指数的湖南旅游目的地城市旅游者网络关注度及其空间格局研究 .....           | 陆利军，戴湘毅(836)            |
| 城乡交错区耕地分区管护及生态补偿模式研究——以上海市浦东新区为例 .....           | 李诗瑶，蔡银莺，田霞，廖远琴，张安录(850) |
| 重庆市主城区城市扩张对生态系统服务影响的时空评估 .....                   | 李嘉译，匡鸿海，王佩佩(859)        |
| 基于能值分析的价值型水资源资产负债表编制 .....                       | 黄晓荣，秦长海，郭碧莹，贾玲，奚圆圆(869) |

### 自然资源

|                                     |                                  |
|-------------------------------------|----------------------------------|
| 中国稀有轻金属关键性动态评估——以锂和铍为例 .....        | 黄健柏，孙芳(879)                      |
| 生态修复后海三棱藨草湿地底栖生物多样性的年度变化及影响因子 ..... | 钟胜财，于克锋，厉成伟，吴铭轩，武鹏玲，何培民，方淑波(889) |
| 丰水期赣江流域着生藻类群落结构及其与水环境因子的关系 .....    | 肖妮娜，张萌，冯兵，张敏，徐军，刘足根，张秋根(900)     |
| 中华鳖养殖池塘中的浮游甲壳动物群落结构研究 .....         | 魏文志，吴震，王家军，王柳富，张莹莹(911)          |
| 环洞庭湖区地下水位空间分布特征研究 .....             | 王俊霖，黄兵，郑颖，徐悦(919)                |
| 长江干流宜昌-监利段洲滩湿生植物群落特征及其驱动因子分析 .....  | 徐强强，袁赛波，申明华，刘学勤(928)             |
| 亚热带山地常绿落叶阔叶混交林物种幼苗功能性状差异研究 ...      | 万丹，刘检明，徐耀粘，江明喜，谷志容，廖春林(938)      |

### 生态环境

|                                                  |                        |
|--------------------------------------------------|------------------------|
| 长江中下游流域人类活动强度及其对湿地景观格局影响研究 .....                 | 贾艳艳，唐晓岚，杨阳，马坤(950)     |
| 桂林毛村地下河水-气界面 CO <sub>2</sub> 通量的变化特征及其影响因素 ..... | 王修华，吴夏，黄芬，曹建华，胡晓农(964) |
| 重庆市广阳岛生态规划对局地气候影响的数值模拟试验 .....                   | 刘晓冉，朱浩楠，姜平，周杰(974)     |
| 全球气候变化与区域气象及空气质量的关系研究——以成都市为例 .....              | 武文琪，张凯山(985)           |

### 农业发展

|                                               |                      |
|-----------------------------------------------|----------------------|
| 劳动力老龄化对农村土地流转的影响——土地情结与劳动能力限制谁占主导？ .....      | 张军，郑循刚(997)          |
| 江西省农业生产要素错配测度与影响因素的实证研究 .....                 | 吴伟伟，包锐璇，张燕华(1005)    |
| 务农年限、邻里交流与农户生态耕种采纳度——基于江西省的数据验证 .....         | 谢贤鑫，陈美球(1016)        |
| 归属感对农户参与村域环境治理的影响分析——基于湖北省 1007 个农户调研数据 ..... | 李芬妮，张俊飏，何可，畅华仪(1027) |
| 激励与约束如何影响农户生物农药施用行为——兼论约束措施的调节作用 .....        | 沈昱雯，罗小锋，余威震(1040)    |

中国科学院南京地理与湖泊研究所  
南京大学国土资源与旅游学系 协 办  
华东师范大学中国现代城市研究中心

期刊基本参数:CN 42-1320/X \* 1992 \* m \* A4 \* 266 \* zh \* P \* ¥ 60.00 \* 1000 \* 24 \* 2020-04  
刊名题字:第十一届全国人大常委会副委员长路甬祥

RESOURCES AND ENVIRONMENT  
IN THE YANGTZE BASIN  
(Changjiang Liuyu Ziyuan yu Huanjing)

Vol.29 No.4

Apr. 2020

Contents

Industrial Agglomeration and Urban Water Intensity: Inhibition or Promotion——Based on the Experience Analysis of 285 Prefecture-level Cities or Above in China ..... QUYAN Gui-quan, HE Yu-cheng, ZHANG Xiao-heng, YANG Yu-rong (798)

Research on Spatiotemporal Difference and Spatial Convergence of Green Total Factor Productivity in Interprovincial Logistics Industry ..... LI Jian, LIU Lian (812)

Spatio-temporal Pattern Evolution of Economy Development-Space Exploitation-Environment Evolution Coupling Coordination in the Pan Yangtze River Delta ..... GAO Lin-xuan, GUAN Wei-hua, XIA Si-you, QIAO Wen-yi, YANG Xing (823)

Classification and Spatial Distribution Pattern of Rural Leisure Tourism Destinations in Jiangxi Province ..... ZHU Zhong-yuan, WANG Rong, HU Jing, LI Ya-juan (835)

Research on the Tourist Network Attention and Spatial Pattern of Tourist Destination Cities in Hunan Based on the Baidu Index ... LU Li-jun, DAI Xiang-yi (848)

Protection Zoning and Ecological Compensation Mode of Cultivated Land at the Urban-Rural Fringe: A Case Study in Pudong New Area, Shanghai ..... LI Shi-yao, CAI Yin-ying, TIAN Xia, LIAO Yuan-qin, ZHANG An-lu (858)

Spatio-temporal Assessment of Urban Expansion Impacts on Ecosystem Services in Chongqing City ..... LI Jia-yi, KUANG Hong-hai, WANG Pei-pei (868)

Compilation of Water Resources Value Balance Sheet Based on Emergy Theory ..... HUANG Xiao-rong, QIN Chang-hai, GUO Bi-ying, JIA Ling, XI Yuan-yuan (878)

Dynamic Criticality Assessment of Rare Light Metals in China: Case Study of Lithium and Beryllium ..... HUANG Jian-bai, SUN Fang (888)

Variation and the Associated Affecting Factors of Benthic Biodiversity in Wetlands of Scirpus Mariqueter on Remediated Nanhui Coasts ..... ZHONG Sheng-cai, YU Ke-feng, LI Cheng-wei, WU Ming-xuan, WU Peng-ling, HE Pei-min, FANG Shu-bo (899)

Community Structure of Periphytic Algae and Their Relationship to Water Environmental Factors in Ganjiang River Basin During the High Water Period ..... XIAO Ni-na, ZHANG Meng, FENG Bing, ZHANG Min, XU Jun, LIU Zugen, ZHANG Qiu-gen (910)

Community Structure of Crustacean Zooplankton in the Trionyx sinensis Aquaculture Ponds ..... WEI Wen-zhi, WU Ting, WANG Jia-jun, WANG Liu-fu, ZHANG Ying-ying (918)

Spatial Characteristics of Groundwater Level in Dongting Lake Area ... WANG Jun-lin, HUANG Bing, ZHENG Ying, XU Yue (927)

Assemblage Structure Characteristics of Hygrophytic Plants and Their Driving Factors in Sand Bars in Yichang-Jianli Section of the Yangtze Mainstem ..... XU Qiang-qiang, YUAN Sai-bo, SHEN Ming-hua, LIU Xue-qin (937)

Study on Variations of Seedling Functional Traits in A Mixed Evergreen and Deciduous Broad-leaved Forest in Central China ..... WAN Dan, LIU Jian-ming, XU Yao-zhan, JIANG Ming-xi, GU Zhi-rong, LIAO Chun-lin (948)

Research on Human Activity Intensity and Its Impact on Wetland Landscape Pattern in the Middle and Lower Reaches of the Yangtze River Basin ..... JIA Yan-yan, TANG Xiao-lan, YANG Yang, MA Kun (963)

Spatial Variations of CO<sub>2</sub> Degassing Across Water-air Interface and Its Impact Factors in Maocun Groundwater River Outlet, Guilin ..... WANG Xiu-hua, WU Xia, HUANG Feng, CAO Jian-hua, HU Xiao-nong (973)

Numerical Simulation Experiment on the Effect of Ecological Planning on Local Climate in Guangyang Island of Chongqing City ..... LIU Xiao-ran, ZHU Hao-nan, JIANG Ping, ZHOU Jie (984)

Correlational Analysis of Global Climate Change Versus Regional Meteorology and Air Quality: A Case Study in Chengdu ..... WU Wen-qi, ZHANG Kai-shan (996)

Effect of Rural Ageing Labor Force on Land Transfer: Land Complex or Labor Capability Restriction Dominates? ..... ZHANG Jun, ZHENG Xun-gang (1004)

Positive Research on the Misallocation of Agricultural Factor and Its Determinants in Jiangxi Province ..... WU Wei-wei, BAO Kai-xuan, ZHANG Yan-hua (1015)

Years of Farming, Neighborhood Communication and Farmers' Ecological Farming Adoption: Based on Data Validation in Jiangxi Province ..... XIE Xian-xin, CHEN Mei-qiu (1026)

Effect of Sense of Belonging on Farmers' Participation in Rural Environmental Governance: Based on the Survey Data of 1007 Farmers in Hubei Province ..... LI Fen-ni, ZHANG Jun-biao, HE Ke, CHANG Hua-yi (1039)

How Incentives and Constraints Affect Farmers' Biological Pesticide Application Behavior: Concurrently Discussing the Regulating Effect of Restraint Measures ..... SHEN Yu-wen, LUO Xiao-feng, YU Wei-zhen (1050)

声明: 论文一经《长江流域资源与环境》期刊发表, 论文数字化复制权、发行权、汇编权及信息网络传播权将转让予《长江流域资源与环境》期刊编辑部。

《长江流域资源与环境》编辑委员会和编辑部  
Editorial Board of Resources and Environment in the Yangtze Basin

|                                          |                      |                      |                         |                        |                        |                      |                     |
|------------------------------------------|----------------------|----------------------|-------------------------|------------------------|------------------------|----------------------|---------------------|
| 顾问<br>Advisors                           | 孙鸿烈<br>SUN Hong-lie  | 陈宜瑜<br>CHEN Yi-yu    | 欧阳自远<br>OU-YANG Zi-yuan | 殷鸿福<br>YIN Hong-fu     | 秦大河<br>QIN Da-he       |                      |                     |
| 主 编<br>Editor-in-chief                   | 许厚泽<br>XU Hou-ze     |                      |                         |                        |                        |                      |                     |
| 副 主 编<br>Associate Chief Editors         | 谢 平<br>XIE Ping      | 王克林<br>WANG Ke-lin   | 段学军<br>DUAN Xue-jun     | 陈 丹<br>CHEN Dan        | 吕新华<br>LV Xin-hua      |                      |                     |
| 编 委<br>Members of the Board              | (按姓氏笔划为序)            |                      |                         |                        |                        |                      |                     |
|                                          | 于秀波<br>YU Xiu-bo     | 王先甲<br>WANG Xian-jia | 王学雷<br>WANG Xue-lei     | 王克林<br>WANG Ke-lin     | 王洪铸<br>WANG Hong-zhu   | 邓 伟<br>DENG Wei      | 伍新木<br>WU Xin-mu    |
|                                          | 许厚泽<br>XU Hou-ze     | 刘 清<br>LIU Qing      | 江明喜<br>JIANG Ming-xi    | 吕新华<br>LV Xin-hua      | 宋长青<br>SONG Chang-qing | 李长安<br>LI Chang-an   | 吴 宁<br>WU Ning      |
|                                          | 吴永红<br>WU Yong-hong  | 吴季松<br>WU Ji-song    | 吴炳方<br>WU Bing-fang     | 杜 耘<br>DU Yun          | 杨林章<br>YANG Lin-zhang  | 杨桂山<br>YANG Gui-shan | 谷树忠<br>GU Shu-zhong |
|                                          | 陆大道<br>LU Da-dao     | 陆玉麒<br>LU Yu-qi      | 陈 丹<br>CHEN Dan         | 陈永柏<br>CHEN Yong-bo    | 陈利顶<br>CHEN Li-ding    | 陈国阶<br>CHEN Guo-jie  | 陈 进<br>CHEN Jin     |
|                                          | 陈家宽<br>CHEN Jia-kuan | 罗 鹏<br>LUO Peng      | 胡振鹏<br>HU Zhen-peng     | 钟永恒<br>ZHONG Yong-heng | 俞立中<br>YU Li-zhong     | 段学军<br>DUAN Xue-jun  | 郭劲松<br>GUO Jin-song |
|                                          | 聂 品<br>NIE Pin       | 袁 雯<br>YUAN Wen      | 徐长乐<br>XU Chang-le      | 顾朝林<br>GU Chao-lin     | 黄贤金<br>HUANG Xian-jin  | 黄真理<br>HUANG Zhen-li | 曹文宣<br>CAO Wen-xuan |
|                                          | 常剑波<br>CHANG Jian-bo | 曾 刚<br>ZENG Gang     | 傅伯杰<br>FU Bo-jie        | 傅 春<br>FU Chun         | 谢 平<br>XIE Ping        | 鄢帮有<br>YAN Bang-you  | 虞孝感<br>YU Xiao-gan  |
|                                          | 戴会超<br>DAI Hui-chao  | 濮励杰<br>PU Li-jie     | Nipper Josef            | Erik Jeppesen          |                        |                      |                     |
| 编 辑 部<br>Members of the Editorial Office | 吕新华<br>LV Xin-hua    | 汤宏波<br>TANG Hong-bo  | 李富山<br>LI Fu-shan       | 赵素婷<br>ZHAO Su-ting    |                        |                      |                     |

长江流域资源与环境  
Changjiang Liuyu Ziyuan yu Huanjing  
(月刊 1992年创刊)  
第29卷第4期 2020年4月

RESOURCES AND ENVIRONMENT  
IN THE YANGTZE BASIN  
(Monthly, Started in 1992)  
Vol. 29 No.4 Apr. 2020

|      |                                                                             |                 |                                                                                                                                                              |
|------|-----------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 编辑   | 《长江流域资源与环境》编辑部<br>(武汉市武昌小洪山西区25号, 邮编: 430071<br>电子信箱: bjb@mail.whlib.ac.cn) | Edited by       | Editorial Office of <i>Resources and Environment in the Yangtze Basin</i><br>(Xiaohongshan, Wuchang, Wuhan 430071, P.R.China<br>E-mail:bjb@mail.whlib.ac.cn) |
| 主编   | 许厚泽                                                                         | Editor-in-Chief | XU Hou-ze                                                                                                                                                    |
| 主管单位 | 中国科学院                                                                       | Supervised by   | Chinese Academy of Sciences                                                                                                                                  |
| 主办单位 | 中国科学院资源环境科学与技术局<br>中国科学院武汉文献情报中心                                            | Sponsored by    | Bureau of Science & Technology for Resources & Environment, CAS; Wuhan Documentation & Information Centre, CAS                                               |
| 出版   | 科学出版社<br>(北京东皇城根北街16号, 邮编: 100717)                                          | Published by    | Science Press<br>(16 Donghuangchenggen North Street, Beijing 100717)                                                                                         |
| 印刷装订 | 武汉中科兴业印务有限公司                                                                | Distributed by  | Wuhan Bureau for Distribution of Newspapers and Journals                                                                                                     |
| 国内发行 | 武汉市报刊发行局                                                                    | Domestic        | All Local Post Offices in China                                                                                                                              |
| 订购处  | 全国各地邮局                                                                      | Foreign         | China National Publications Import & Export Corporation (P.O.Box 88, 16 Gongti East Road, Beijing 100020, P.R.China)                                         |
| 国外发行 | 中国图书进出口总公司<br>(北京工体东路16号, 邮编: 100020)                                       |                 |                                                                                                                                                              |

刊号 ISSN 1004-8227  
CN 42-1320/X

代号 国内邮发: 38-311  
国外发行: 42-1320Q

© 版权所有  
CODEN CLZHF

国内外公开发行  
国内定价: 60.00 元

ISSN 1004-8227



04>

9 771004 822202