

# 湖泊科学 2022 年 第 34 卷 总目次

## 专 稿

- 水质较好湖泊环境保护的理论基础及中国实践 ..... (699)  
郑丙辉,曹晶,王坤,储昭升,姜霞
- “引江济太”20 年:工程实践、成效和未来挑战 ..... (1393)  
吴浩云,甘月云,金科

## 综 述

- 湖泊沉积物磷钝化材料的研究进展 ..... (1)  
马鑫雨,杨盼,张曼,杨春晖,尹洪斌
- 湖泊湿地水文过程研究进展 ..... (18)  
谭志强,李云良,张奇,郭宇菲,王晓龙,李冰,万荣荣,王殿常,吴兴华
- 湖泊蓝藻水华防控方法综述 ..... (349)  
史小丽,杨瑾晟,陈开宁,张民,阳振,于洋
- 噬藻体对蓝藻种群密度的调控及其对水体中物质循环的影响 ..... (376)  
张奕妍,黄兰兰,王夕予,丁士明,刘子鹤,童银栋
- 湖库温跃层溶解氧最小值的形成原因、衍生的生态风险及控制研究进展 ..... (711)  
文刚,王硕,曹瑞华,温成成,杨劲,黄廷林
- 太湖流域水文连通性:现状、研究进展与未来挑战 ..... (1055)  
杨素,万荣荣,李冰
- 小流域农业面源污染监测断面设置与污染物通量估算研究进展 ..... (1413)  
李影,秦丽欢,雷秋良,罗加法,杜新忠,闫铁柱,刘宏斌
- 铁(氢)氧化物介导的溶解性有机质、无机磷的固定及相互作用研究进展 ..... (1428)  
文帅龙,刘静静,戴家如,黄秀琳,安世林,刘正文,杜璘琦
- 生物共现网络原理及其在淡水生态系统评估中的应用 ..... (1765)  
万凌琳,陈芷凡,郭佳,佟立辉,任丽娟,韩博平,吴庆龙
- 中国鲤科鱼类游泳能力综合分析和应用 ..... (1788)  
蔡露,Katopodis Christos,金瑶,黄应平,韩德举,胡望斌,陈小娟,陶江平,侯轶群

## 研究论文

### ——富营养化与水华防控

- 巢湖蓝藻水华监测预警与模拟分析平台设计与实践 ..... (38)  
邱银国,段洪涛,万能胜,高芮,黄佳聪,薛坤,彭兆亮,肖鹏峰
- 大型湖库滨岸带蓝藻水华堆积风险评估——以巢湖为例 ..... (49)  
钱瑞,彭福利,薛坤,齐凌艳,段洪涛,邱银国,陈青,陈粉丽,高俊峰,黄佳聪
- 南水北调东线工程运行 3 年后东平湖浮游植物群落特征及环境驱动因子 ..... (61)  
董贯仓,冷春梅,丛旭日,刘超,朱士文,孙鲁峰,高云芳,容涵,李秀启
- 基于 Sentinel-3 OLCI 影像的巢湖藻蓝素浓度年内动态遥感监测 ..... (391)  
汪志成,王杰,晏实江,崔玉环,王行行
- 南亚热带特大型水库浮游植物群落特征及其与环境因子的关系:以新丰江水库为例 ..... (404)  
张辉,彭宇琼,邹贤妮,张婷婷,巫楚,乔永民,杨洪允
- 钱塘江干流夏季浮游植物群落结构特征及其对水文气象的响应 ..... (418)  
张萍,国超旋,俞洁,权秋梅,姚建良,王吉毅,叶小锐,朱梦圆,孙起亮,朱广伟

鄱阳湖流域柘林水库秋季浮游植物群落结构及其构建过程驱动机制 .....	(433)
陈 康, 孟子豪, 李学梅, 朱挺兵, 胡飞飞, 刘 璐, 朱永久, 范春林, 杨德国	
城市中小河道沉水植物盖度和生物量计算方法——基于上海市的调查分析 .....	(445)
张 群, 刘家霖, 朱 义, 张春松, 宋 晴, 崔心红	
太湖长孢藻属 ( <i>Dolichospermum</i> ) 生物量长期动态变化及驱动因子 .....	(727)
屈 宁, 李 明, 张 玮, 刘 霞, 朱梦圆, 邓建明	
汉江中下游水华防控生态调度研究 .....	(740)
李 建, 尹 炜, 贾海燕, 辛小康, 王 超	
持续性高藻输入河道温室气体时空排放特征及其影响因素 .....	(752)
张 璐, 荀 凡, 沈 悦, 柯 凡, 杜 先, 陈新芳, 冯慕华	
低浓度硝态氮促进微囊藻累积多聚磷酸盐 .....	(766)
陈 成, 郑超群, 王梦梦, 杨顺清, 杨柳燕	
广西武鸣盆地岩溶泉口浮游生物群落对环境变化的响应 .....	(777)
韦丽琼, 郭 芳, 姜光辉	
基于 Landsat 8 OLI 影像反演的湖北大冶湖水体光学衰减特性 .....	(791)
任伟祥, 吴晓东, 聂洪峰, 肖春蕾, 葛绪广, 杨久芸, 罗 璐	
太湖蓝藻水华暴发的氮磷控制阈值分析 .....	(1075)
曹 晶, 田泽斌, 储昭升, 牛 远, 郑丙辉	
基于遥感藻总量和气象因子的巢湖不同湖区藻华预测 .....	(1090)
刘 东, 张 氏, 沈 明, 曹志刚, 齐天赐, 邱银国, 段洪涛	
贵州高原百花水库浮游植物功能群的动态变化及驱动因子 .....	(1102)
韩丽彬, 王 星, 李秋华, 黄国佳, 马一明, 潘少朴, 李银久	
西藏麦地卡湿地的浮游植物——2. 功能群特征及其与环境因子的关系 .....	(1115)
潘成梅, 刘 洋, 安瑞志, 巴 桑	
上海水源地毗邻湖库浮游植物群落结构的季节变化及其影响因子 .....	(1127)
王三秀, 魏 菜, 王 爽, 陈 玲, 黄清辉	
藻类生长预测模型的比较研究——以洪湖水体为例 .....	(1140)
郭正强, 严平川, 向宣好, 鲍仲涛	
基于色度角的岱海水体营养状态遥感评估 .....	(1150)
王 芳, 青 松, 刘 楠, 郝艳玲, 包玉海	
2016—2020 年长江中游典型湖泊水质和富营养化演变特征及其驱动因素 .....	(1441)
赵晏慧, 李 韬, 黄 波, 冯艳玲, 雷明军, 卓海华, 吴云丽	
寡一中营养型水体偶发性蓝藻水华的驱动因素分析——以南京方便水库为例 .....	(1452)
陈文权, 孟洋洋, 单廷功, 李香华, 王 炜, 张 氏	
氮磷比对微囊藻与栅藻磷赋存及分配的影响 .....	(1461)
谭 啸, 石 琳, 段志鹏, 曾庆飞, 李聂贵, 强 娟	
太湖流域浮游植物功能类群分布特征及其与环境因子的关系 .....	(1471)
罗敏纳, 孙蓓丽, 朱冰川, 宋 挺, 蔡 琨, 吕学研, 张 咏, 张 玮, 石浚哲, 张虎军, 刘 妍, 陆欣鑫, 范亚文, 张军毅	
不同生长型沉水植物配置对生物量积累和水质净化效果的影响 .....	(1484)
胡 傲, 李宇辉, 杨予静, 彭秋桐, 李中强	
调水前后南四湖藻密度及水环境要素变化特征 .....	(1802)
谭 浪, 王宗志, 白 莹, 舒博宁, 王卫光	
呼伦湖浮游植物群落季节动态及其与环境因子的关系 .....	(1814)
钱玺亦, 李金彪, 敖 文, 庞 博, 包萨茹, 王 琪, 刘 波, 王增龙	

有机和常规农业管理方式下的浮游植物群落特征及其影响因素 .....	(1828)
杜少娟,王吉毅,国超旋,Jonathan Miles Adams,任明磊,李  侃,郭亚平,杜宗军,王建军	
基于视频监控图像的环巢湖蓝藻实时动态监测 .....	(1840)
马腾耀,肖鹏峰,张学良,段洪涛,邱银国	
蓝藻生消对巢湖沉积物 <i>phoD</i> 碱性磷酸酶基因细菌群落结构的影响 .....	(1854)
孙婷婷,黄  涛,刘雨昕,孙庆业	
基于高分六号数据提取太湖蓝藻方法的对比及适用性分析 .....	(1866)
潘  鑫,杨  子,杨英宝,孙怡璇,刘苏仪,谢文英,李藤藤	
耦合敏感参数实时识别的新型数据同化算法研究——以湖泊藻类模拟为例 .....	(1877)
张  帅,彭福利,季雨来,张  京,张奇谋,李  琪,钱  瑞,齐凌艳,黄佳聪	
基于浮游植物的城市湖泊生态健康评价——以长江下游铜陵市西湖为例 .....	(1890)
王  芳,李永吉,马廷婷,陈辉辉,王晓龙,李宽意,吴召仕	
<b>——生物地球化学与水环境保护</b>	
环太湖各水资源分区入出湖河流总磷浓度与负荷变化分析 .....	(74)
李琼芳,许树洪,陈启慧,贾小网,严方家,朱玉婷,林  鹏,皋  云	
基于多指标综合评分法筛选地表水环境优先污染物——以湖北涨渡湖为例 .....	(90)
丁琪琪,龚雄虎,王兆德,金  苗,卢少勇,张  路,赵中华	
泄洪对典型有机污染物迁移转化行为的影响——以丹江口水库为例 .....	(108)
张  胜,苏紫颖,林  莉,陶晶祥,潘  雄,董  磊	
洱海悬浮颗粒物和表层沉积物有机碳氮同位素来源特征及水质指示意义 .....	(118)
季宁宁,刘  永,王圣瑞	
乌伦古湖水体矿化度和氟化物浓度的年际变化及模拟 .....	(134)
全利红,刘英俊,张  硕,刘晓伟,贾其萃,黄跃飞,倪广恒,卢文洲	
南极湖泊沉积物中有机硫组成及其与铁硫化物的联系 .....	(142)
沈丽丽,孙婷婷,郭晓宇,黄  涛	
太湖沿岸区浅层底泥重金属污染分析及生态风险评价 .....	(455)
陆志华,蔡  梅,王元元,钱  旭,潘明祥	
水库环保疏浚及板框脱水工程中余水水质及变化规律 .....	(468)
朱  伟,许小格,侯  豪,程  林,李岳鸿,林小蔚,吴  勇	
新疆艾比湖流域河湖水质变化(2005—2020年) .....	(478)
张  飞,王维维,辛红云,郝晋新,刘长江,段  潘	
白洋淀湿地表层土壤主要环境元素分布特征及来源 .....	(496)
刘雪松,王雨山,王旭清,尹德超	
白洋淀湿地不同植物群落区表层沉积物碳氮磷化学计量特征 .....	(506)
尹德超,王雨山,祁晓凡,安永会,王旭清,徐蓉楨	
基于 SWAT 模型的典型农业小流域氮污染时空分布特征及关键源解析 .....	(517)
王慧勇,遆超普,王良杰,董  磊,夏永秋,颜晓元	
鄱阳湖水体溶解无机碳的季节变化、输送及其来源 .....	(528)
李艳红,葛  刚,胡春华	
白洋淀春季沉积物好氧反硝化菌群落结构特征及对溶解性有机物的响应 .....	(538)
陈召莹,张甜娜,张紫薇,周石磊,董宛佳,崔建升,罗  晓	
亚高山湖泊天才湖周边土壤腐殖酸的光降解研究 .....	(553)
安世林,罗春燕,陈  煜,杜瑛琦	
太湖底泥垂向构成类型及底泥—水界面组成物质 .....	(804)
侯  豪,朱  伟,许小格,薛宗璞,程  林	

基于 GIS 的洱海流域氮素时空分异特征及源结构解析 .....	(816)
李晓琳, 帅永芳, 张翼, 郑毅, 危锋, 韦晓雪	
硫铝酸盐水泥去除微污染水体中磷的性能及机理 .....	(828)
杨蕊, 刘国, 黄艳采, 张琪琪, 徐芬, 廖兵, 刘静	
不同上覆水氟浓度对湖泊沉积物氟释放与微生物群落的影响 .....	(843)
朱翔, 徐志鹏, 罗一单, 彭福全, 庞晴晴, 谢磊, 马玉坤, 汪龙眠	
乌兹别克斯坦阿姆河流域水体中多环芳烃的分布、来源及风险评估 .....	(855)
金苗, 吴敬禄, 占水娥, Shakhimardan Shaniyazov	
我国南方地区桉树叶浸泡对水库沉积物致黑元素分布及迁移转化的影响 .....	(1164)
魏尧, 李一平, 朱雅, 刘斯璇, 李荣辉, 唐春燕, 郭晋川, 陈刚, 黄亚男, 王亚宁, 陈春, 何菁	
引水工程出水路线的优化对太湖总磷格局的影响——基于新孟河工程的思考 .....	(1175)
朱伟, 薛宗璞, 刘环, 程林, 张昱, 赵帅, 冯甘雨, 王若辰	
盐度对湖冰冻结过程中氮磷营养盐排出效应的影响 .....	(1186)
张程, 黄文峰, 李瑞, 杨惠杰, 赵雯, 林战举	
太湖入、出湖湖区磷的特征及其影响因素分析 .....	(1493)
蔡梅, 钱旭, 王元元, 陆志华, 张玮	
基于改进 SWAT 模型的灌溉—施肥—耕作对乌梁素河流域营养物负荷及作物产量的影响 .....	(1505)
王维刚, 史海滨, 李仙岳, 孙亚楠, 张文聪, 周慧	
典型网状河网区域土地利用和景观格局对地表季节水质的影响——以江苏省溧阳市为例 .....	(1524)
张志敏, 杜景龙, 陈德超, 张飞	
珠江流域东江(东莞段)溶解氧时空变化及其影响因素 .....	(1540)
徐闯, 刘广州, 陈晓宏	
不同来源有色溶解性有机物光化学/微生物降解过程 .....	(1550)
张怡暄, 庞锐, 任源鑫, 程丹东	
湿地植物固体碳源养分释放动态及其对人工湿地水体脱氮效率的影响 .....	(1562)
谭佩阳, 侯志勇, 谢永宏, 李峰, 杨扬, 陈薇, 李阳	
乌梁素海冰封期溶解氧的平衡性分析 .....	(1570)
张帆, 史小红, 赵胜男, 郝若男, 翟佳伦	
不同典型年“引江济巢”工程对巢湖水质的影响 .....	(1901)
易雨君, 郭玉明, 刘泓汐	
南四湖消落带底泥磷形态分布特征、影响因素及释放风险 .....	(1912)
张志斌, 徐国栋, 张晓蕊, 鞠颂, 林建伟, 张彦浩, 孙杰, 王书义, 张向阳, 时延锋	
四种常见湖泊沉积物氮磷通量估算方法对比分析 .....	(1923)
姜斯乔, 谢舒恬, 郑元铸, 柯凡, 张晨旭, 冯慕华, 高海鹰	
太湖上游丘陵区典型水塘反硝化潜力变化特征及其影响因素 .....	(1937)
王慧亮, 曹恒, 张汪寿, 李恒鹏, 何鹏, 夏天宇, 陈永娟	
梯级筑坝下小型山区河流水体碳氮磷的时空特征及富营养化风险 .....	(1949)
阙子亿, 王锐锋, 袁兴中, 吴胜男, 余乐乐, 李航, 张媛媛, 王继龙	
极端降水条件下白洋淀主淀区水化学特征及水质变化 .....	(1968)
韩玉丽, 卜红梅	
白洋淀沉积物重金属潜在生态风险及生物可利用性分析 .....	(1980)
刘成, 黄蔚, 古小治, 张雷, 陈开宁	
江苏高宝邵伯湖表层水体典型精神类药物及其代谢产物的污染水平、分布特征及风险评估 .....	(1993)
翁郁馨, 杨慧婷, 陈辉辉, 许妍, 谷孝鸿, 金苗, 毛志刚, 曾庆飞	

——淡水生态与生物多样性保育

- 江湖阻隔背景下东部平原湖泊鱼类功能特征及多样性变化 ..... (151)  
郑 鹏, 蒋小明, 曹 亮, 王 俊, 姜卓群
- 水库浮游细菌生产和呼吸过程代谢内外源有机碳研究 ..... (162)  
韩一萱, 李 彪, 荀 凡, 高培鑫, 毛振铎, 陶 晔, 邢 鹏
- 食物与桡足类营养级对亚热带分层水库浮游动物群落结构的影响 ..... (174)  
陈辉煌, 王文平, 薛媛媛, 高肖飞, 金 磊, 杨 军
- 西洞庭湖天然和人工改造湿地中克氏原螯虾 (*Procambarus clarkii*) 与日本沼虾 (*Macrobrachium nipponense*) 的食性差异 ..... (184)  
谭文卓, 李 斌, 王玉玉, 肖雅渝, 陆修远, 杨梨萍, 雷光春, 蔡教慧, 何木盈
- 网围拆除后东太湖鱼类功能群时空变化及影响因子 ..... (569)  
谷先坤, 刘燕山, 唐晟凯, 李大命, 张彤晴, 曾庆飞, 毛志刚, 陈辉辉, 谷孝鸿
- 秀丽白虾 (*Exopalaemon modestus*) 对亚热带湖库春夏季水体营养水平和浮游生物群落的影响——  
基于微宇宙模拟实验 ..... (582)  
宁晓雨, 张 磊, 陈坤全, 韩财安, 李启升, 李宽意, 何 虎, 赵璧影
- 基于脂肪酸生物标志物分析南京市及其周边不同营养水平湖库的浮游动物碳源 ..... (590)  
马静静, 李廷真, 李宽意, 苏雅玲, 刘正文
- 青藏高原陆相介形类的分布特征及其对生态环境的响应 ..... (868)  
韩春梅, 李祥忠, 樊启顺, 魏海成, 程雅平
- 亚热带河口区对虾养殖池塘浮游植物初级生产力变化 ..... (881)  
洪 妍, 杨 平, 仝 川, 赵光辉, 李 玲, 唐 晨, 张 彦, 谭莹莹, 阮蔓菁
- 鄱阳湖苔草洲滩湿地土壤胞外酶活性和化学计量比的高程变化特征 ..... (894)  
黄幸运, 温秀婷, 张 研, 戎 俊, 聂 明, 郑博福, 沈瑞昌
- 贵州草海喀斯特高原湖泊湿地甲烷氧化菌群落特征及功能探析 ..... (906)  
艾 佳, 吕 杨, 钟 雄, 李彦澄, 李 江, 杨爱江
- 生态补水对白洋淀湿地植被格局的影响 ..... (1197)  
唐彩虹, 陈东明, 易雨君, 周 扬, 张尚弘
- 三峡水库枯水期补水调度对洞庭湖越冬白鹤 (*Grus leucogeranus*) 摄食栖息地的影响 ..... (1208)  
戴凌全, 王 煜, 汤正阳, 戴会超, 任玉峰, 常曼琪, 吴 倩, 毛劲乔
- 汉江中下游梯级枢纽联合生态调度对产漂流性卵鱼类自然繁殖的效应研究 ..... (1219)  
雷 欢, 陈 锋, 谢文星, 陈金生, 金 瑶, 黄道明
- 不同沉水植物叶片附着细菌群落多样性及网络结构差异 ..... (1234)  
昂正强, 孙晓健, 曹新益, 周 淇, 关保华, 曾 巾
- 水文与岸滩变化对滨岸带南荻—芦苇群落适宜生境的影响——以长江武汉河段为例 ..... (1250)  
熊海滨, 孙昭华, 陈 立, 杨绪海, 周歆玥, 李芷晴, 周炜兴
- 克氏原螯虾 (*Procambarus clarkii*) 对新鲜和不同分解腐烂程度的沉水植物摄食选择性研究 ..... (1262)  
罗艺涓, 张泽慧, 高 健, 焦一滢, 王和云, 廖明军
- 海洋水色遥感产品在青海湖鱼产潜力估算中的应用 ..... (1271)  
班 璇, 舒 鹏, 祁 涛, 龙奥运, 祁洪芳, 杜 浩, 杨建新, 史建全, 杨海乐, 李君轶
- 有壳变形虫群落组成及与环境因子的关系——以山西滹沱河湿地为例 ..... (1284)  
王春玲, 胡 杰, 赵心语, 王婷婷, 苟奎贤, 甄志磊
- 鄱阳湖夏季极端水位条件下越冬水鸟多样性、空间分布及其保护对策 ..... (1584)  
张 超, 李言阔, 任 琼, 单继红, 王贤芳, 方彭军, 邵瑞清, 申 锦, 钱 磊, 李安梅, 塔 旗
- 长江中下游升金湖湿地越冬鸭属 (*Anas*) 鸟类群落结构和行为特征 ..... (1596)  
范少军, 周立志, 于 超

我国 8 个水电站 15 种过鱼对象游泳能力研究 .....	(1608)
柯森繁,金志军,李志敏,雷青松,王永猛,石小涛,涂志英	
东太湖浮游植物与浮游动物群落的嵌套性及其互作网络的季节特征 .....	(1620)
胡 洋,张亚洲,姜星宇,邵克强,汤祥明,高 光	
渭河干流与其秦岭北麓典型支流浮游动物群落结构及影响因素 .....	(1630)
陈 越,潘保柱,吴 利,胡 恩,赵耿楠,张 森	
抚仙湖垂向分层期间水体细菌群落结构组成及多样性的空间分布 .....	(1642)
周天旭,罗文磊,笕 俊,吴 琼,余春艳,李化炳	
江苏沿江湖泊湿地越冬水鸟多样性及其影响因素 .....	(2005)
张 永,施 慧,刘璐婷,沈 伟,赵梓羲	
抚仙湖北部沉水植被演变规律及其生态指示意义(1987—2020 年) .....	(2016)
朱可欣,王 荣	
澜沧江流域糯扎渡水库消落带植被的物种组成、空间分布特征及地形解释 .....	(2025)
江维薇,李文涛,肖衡林	
福建山美水库浮游动物群落结构时空特征及其影响因子分析 .....	(2039)
刘 倩,刘智暘,王江滨,廖传松,李俊锋,郭 超,王靖斌,熊满堂,张堂林,郭传波,刘家寿	
湖滨带开发利用对大型底栖动物群落结构的影响:以洪泽湖为例 .....	(2055)
黎明杰,张 又,张 颖,徐锦前,胡恺源,蔡永久,龚志军,徐德兰,李宽意	
岱海水体及沉积物细菌多样性及群落组成特征 .....	(2070)
张雨晴,邵克强,胡 洋,丁艳青,张恩楼,高 光,汤祥明	
基于 L 系统的水生植物根系动态生长模型构建 .....	(2083)
黄晓龙,李松阳,李宽意	
基于水声学探测的镜泊湖鱼类时空分布特征及资源量评估 .....	(2095)
宋 聃,都 雪,金星,刘 辉,明 坤,王 乐,王慧博,赵 晨,霍堂斌	
<b>——流域水文与水资源安全</b>	
滨海地区基于避咸蓄淡模式的供水安全临界流量研究——以粤港澳大湾区珠澳供水为例 .....	(194)
涂新军,吴海鸥,陈晓宏,林凯荣,赖荣标	
基于长时间序列(1975—2020 年)生态耗水的岱海动态生态需水分析 .....	(207)
马佳丽,刘东伟,王 杰,程英楠,刘华民,王立新	
近 40 年来贝加尔湖区气候变化及其对湖泊水位的影响 .....	(219)
李 想,张雪芹,徐晓明	
1960 年以来气候变化与人类活动对鄱阳湖流域生态径流改变的影响 .....	(232)
曹宇贤,徐力刚,范宏翔,毛智宇,程俊翔,王殿常,吴亚坤	
黄河中游汾河入黄口湿地水源组成与地表—地下水转化关系 .....	(247)
许秀丽,李云良,高 博,张永波	
城镇化对极端降水的影响及其贡献率研究——以太湖平原地区为例 .....	(262)
何玉秀,许有鹏,李子贻,王 强,陆 苗,高 斌	
陕北定边盐湖卤水水位历史演变及其气候指示意义(1265—1949 年) .....	(272)
董凌霄,费 杰	
长江中游城陵矶河段 2016—2020 年汛期水位非正常波动:影响因子及滤波修正 .....	(286)
程海云,香天元,唐 聪	
三峡工程运用后荆江河段崩岸时空分布及其对河床调整的影响 .....	(296)
夏军强,刘 鑫,邓珊珊,周美蓉,李志威,彭玉明	
基于热红外遥感影像的河流水温反演方法比较——以长江上游流域为例 .....	(307)
石 希,夏军强,孙 健	
基于改进 U-Net 的 CMIP5 全球气候模式降尺度方法及其在鄱阳湖流域的应用 .....	(320)
李克诚,陆建忠,张可睿,陆呈瑜,陈 璞,袁明坤	

近 20 a 色林错湖冰物候变化特征及其影响因素·····	( 334 )
邵雪楠,王宁练,吴玉伟,张玉杰	
鄱阳湖环湖灌区枯季缺水水量分析及对策建议·····	( 601 )
李振旗,程和琴,李纪人,向诗月,滕立志	
三峡水库蓄水前后长江中下游流量频率分布特征及其对洪水造床作用的影响·····	( 616 )
周炜兴,孙昭华,周  坤,李芷晴,陈  立	
控制一反调节水库协同生态调度的优化策略:以三峡—葛洲坝梯级水库为例·····	( 630 )
李游坤,林俊强,秦  鑫,刘  毅,任玉峰,张晓光	
基于频谱分析的水体波浪—紊动流速分离方法·····	( 643 )
段雨新,张占飞,张英豪	
半干旱地区洪水模拟效果差异性分析及影响因子响应评估·····	( 652 )
刘玉环,李致家,刘志雨,罗  贇,霍文博	
过坝下泄水流中温室气体排放速率的数值模拟·····	( 664 )
黄菊萍,欧洋铭,李  然,冯镜洁,李  哲	
河南省黄河流域水资源—经济—生态系统耦合协调评价及预测·····	( 919 )
汪顺生,杨金月,王爱丽,陈春来,柳腾飞	
长江全流域大洪水下三峡水库对洞庭湖区防洪贡献分析·····	( 935 )
徐卫红,张双虎,李  娜,蒋云钟	
1956—2020 年荆江三口径流变化特征及水库补水效果·····	( 945 )
张冬冬,戴明龙,李妍清,王  含	
抚仙湖历史水位反演与未来 30 年水位变化预测·····	( 958 )
李加龙,李慧贤,罗滋蕊,龚发露,张如枫,刘凤龙,吴松涛,罗碧瑜	
乌梁素海冰封期分层与混合特征及对氧代谢速率的影响·····	( 972 )
杨惠杰,黄文峰,张  程,李志军,林战举	
巢湖快速变化风浪场及其环境效应·····	( 985 )
张怡辉,胡月敏,彭兆亮,胡维平,朱金格	
有限水域近水面气流演化特征试验研究·····	( 994 )
高  昂,吴修锋,吴时强,戴江玉,王芳芳,吴晨晖	
1994—2018 年松嫩平原西部月亮泡水淹区生态变化及其对水淹频次的响应·····	( 1294 )
李晓东,宋开山,闫守刚	
太湖流域设计暴雨时空分布对太湖洪水位影响分析·····	( 1308 )
徐天奕	
基于 Copula 的洞庭湖—流域—长江系统水文干旱概率分析·····	( 1319 )
李  珍,李相虎,张  丹,蔺亚玲	
长江下游仪征河段汉道分流属性及航道滩槽演变机制·····	( 1335 )
方娟娟,付  菁,杨云平,许  慧,贾梦琳,王建军,熊  慧	
不同水文情景下洪泽湖二氧化碳碳排放通量特征及影响因素·····	( 1347 )
朱俊羽,彭  凯,李宇阳,刘朝荣,周  蕾,周永强,丁艳青	
基于半偏系数和动态减法集对势的区域水资源承载力评价方法·····	( 1656 )
李  征,金菊良,崔  毅,周戎星,宁少尉,周玉良,周亮广	
基于水质—水位二元响应关系推求过水型湖泊适宜生态水位研究·····	( 1670 )
张天衍,董增川,罗  贇,石晴宜,韩亚雷,崔  璨,周  强,张  游	
三峡水库影响下长江中下游水文干旱演变及对气象干旱的响应·····	( 1683 )
李峥嵘,彭  涛,林青霞,董晓华,刘  冀,常文娟,喻  丹,王高旭	
1958—2017 年太湖蒸发量年际变化趋势及主控因子·····	( 1697 )
荆思佳,肖  薇,王晶苑,郑有飞,王  伟,刘  强,张  圳,胡  诚	

鄱阳湖汇流顶托对长江汉口水位影响的量化分析 .....	(1712)
张明月, 邓鹏鑫, 王磊之, 酆建平, 张冬冬, 程小翠	
强人类活动下半干旱地区湖泊水资源损失过程重建——以岱海为例 .....	(2105)
杨腾腾, 吴挺峰, 嵇晓燕, 秦伯强, 栾承梅, 胡润涛, 何翔宇	
近 60 年来白洋淀流域河川径流演变及湿地生态响应 .....	(2122)
尹德超, 王旭清, 王雨山, 王晓燕, 王 茜, 吴 斌, 刘肖肖, 龚 磊	
太湖平原高度城镇化下降雨特征时空变化研究 .....	(2134)
于志慧, 刘鹏飞, 何玉秀, 许有鹏, 任晓东, 朱立国, 徐 兴	
基于 GF-1 WFV 的 2013—2020 年鄱阳湖采砂活动时空动态监测 .....	(2144)
郑永超, 陆建忠, 陈莉琼, 陈晓玲	
冰封期湖泊溶解氧变化特征及代谢速率 .....	(2156)
杨文焕, 冯栋栋, 杨 芳, 李卫平, 周 鑫, 姚 植, 王乐乐	
<b>——湖泊沉积与环境变化</b>	
太湖流域长荡湖近百年生态环境演变过程 .....	(675)
刘维淦, 林 琪, 张 科, 沈 吉	
黑龙江省连环湖孢粉记录揭示的约 220 年的环境变化与人类活动 .....	(684)
王小丽, 肖海丰, 肖霞云	
<b>——河湖沉积与全球变化响应</b>	
滨江平原的形成模式是江—湖、洲—陆转化——以长江武汉段武昌北部为例 .....	(1006)
李长安, 张玉芬, 李国庆, 郭汝军, 陈 雨	
近百年鄱阳湖湿地格局演变研究 .....	(1018)
李 冰, 万荣荣, 杨桂山, 谭志强, 王殿常, 吴兴华	
近 400 年来湖北大九湖泥炭地摇蚊对湿度变化的响应 .....	(1030)
侯桂林, 曹艳敏, 田文龙, 潘 登, 申声曼, 陈 旭	
柴达木盆地西部更新统砂砾型深层卤水钾矿成矿模式与找矿方向探讨 .....	(1043)
李洪普, 侯献华, 郑绵平, 樊 馥, 刘溪溪, 王淑丽	
抚仙湖沉积物多指标记录的过去 5000 年湖泊环境变化 .....	(1359)
杨春和, 杨 欢, 郑平波, 段立曾, 张晓楠, 张虎才, 沈才明, 孙惠玲	
枝角类亚化石揭示的湖北太白湖过去百余年来环境演变 .....	(1372)
林涌权, 董旭辉, 廖粤军, 李 燕, 羊向东, Jeppesen Erik	
岩芯 XRF 扫描在湖泊年纹层研究中的应用——以青藏高原东南缘新路海为例 .....	(1723)
秦 蓉, 刘丽媛, 王晶晶, 刘兴起, 张 琪, 冯盛楠	
云南云龙天池枝角类群落演替对 1950s 以来人类活动影响信号的识别 .....	(1735)
索 旗, 陈光杰, 孔令阳, 徐会明, 李 静, 张 涛, 王 露, 周 起, 郑 昕	
近百年来湖泊有机碳与无机碳埋藏响应流域开发的协同变化——以石林喀斯特地区为例 .....	(1751)
王 露, 陈光杰, 黄林培, 孔令阳, 李 蕊, 韩桥花, 李 平, 索 旗, 周 起	

## 自然解读

神奇的球状冰(冰球、冰蛋) .....	(695)
解 飞, 卢 鹏, 程 斌, 杨 倩, 李志军	
黄色的蓝藻水华 .....	(1384)
宋 挺, 张军毅, 李旭文, 朱家民, 胡 俊	

## 专家视点

建议将 <i>Pseudanabaena</i> 译成“假鱼腥藻属”而不是“伪鱼腥藻属” .....	(1392)
李仁辉	



# Journal of Lake Sciences Volume 34, 2022 Contents

## Feature articles

- Theoretical basis and Chinese practice for environmental protection of lakes with better water quality 699  
Zheng Binghui, Cao Jing, Wang Kun, Chu Zhaosheng & Jiang Xia
- A retrospect on the water diversion project from Yangtze River to Lake Taihu during 2002–2021: Practices, achievements and future challenges 1393  
Wu Haoyun, Gan Yueyun & Jin Ke

## Reviews

- Advances in researches on phosphorous inactivation materials in lake sediment 1  
Ma Xinyu, Yang Pan, Zhang Man, Yang Chunhui & Yin Hongbin
- Progress of hydrological process researches in lake wetland: A review 18  
Tan Zhiqiang, Li Yunliang, Zhang Qi, Guo Yufei, Wang Xiaolong, Li Bing, Wan Rongrong, Wang Dianchang & Wu Xinghua
- Review on the control and mitigation strategies of lake cyanobacterial blooms 349  
Shi Xiaoli, Yang Jinsheng, Chen Kaining, Zhang Min, Yang Zhen & Yu Yang
- Regulation of cyanobacteria population density by cyanophage and its effect on material circulation in water 376  
Zhang Yiyan, Huang Lanlan, Wang Xiyu, Ding Shiming, Liu Zihe & Tong Yindong
- A review of the formation causes, ecological risks and water quality responses of metalimnetic oxygen minimum in lakes and reservoirs 711  
Wen Gang, Wang Shuo, Cao Ruihua, Wen Chengcheng, Yang Meng & Huang Tinglin
- Hydrological connectivity research in Lake Taihu Basin: Status, progress and future challenges 1055  
Yang Su, Wan Rongrong & Li Bing
- Review on agricultural non-point source pollution monitoring sections layout and pollutant loading estimation in small watershed 1413  
Li Ying, Qin Lihuan, Lei Qiuliang, Luo Jiafa, Du Xinzhong, Yan Tiezhu & Liu Hongbin
- Iron (hydr)oxides mediated immobilization and interaction of dissolved organic matter and inorganic phosphate: A review 1428  
Wen Shuailong, Liu Jingjing, Dai Jiaru, Huang Xiulin, An Shilin, Liu Zhengwen & Du Yingxun
- Principle and application of co-occurrence networks for freshwater ecosystem assessment 1765  
Wan Linglin, Chen Zhifan, Guo Jia, Tong Lihui, Ren Lijuan, Han Boping & Wu Qinglong
- Comprehensive analysis and application of Chinese Cyprinidae swimming ability 1788  
Cai Lu, Katopodis Christos, Jin Yao, Huang Yingping, Han Deju, Hu Wangbin, Chen Xiaojuan, Tao Jiangping & Hou Yiqun

## Research papers

### —*Eutrophication, bloom prevention and control*

- Design and practice of a platform for monitoring, early-warning and simulation of algal blooms in Lake Chaohu 38  
Qiu Yinguo, Duan Hongtao, Wan Nengsheng, Gao Rui, Huang Jiacong, Xue Kun, Peng Zhaoliang & Xiao Pengfeng
- Assessing the risks of harmful algal bloom accumulation at littoral zone of large lakes and reservoirs: An example from Lake Chaohu 49  
Qian Rui, Peng Fuli, Xue Kun, Qi Lingyan, Duan Hongtao, Qiu Yinguo, Chen Qing, Chen Fenli, Gao Junfeng & Huang Jiacong
- Phytoplankton community and driving environmental factors in Lake Dongping after 3 years implementation of the east route of South-to-North Water Diversion Project 61  
Dong Guancang, Leng Chunmei, Cong Xuri, Liu Chao, Zhu Shiwen, Sun Lufeng, Gao Yunfang, Ke Han & Li Xiue

Annual dynamic remote sensing monitoring of phycocyanin concentration in Lake Chaohu based on Sentinel-3 OLCI images	391
Wang Zhicheng, Wang Jie, Yan Shijiang, Cui Yuhuan & Wang Hanghang	
The characteristics of phytoplankton community structure and its relationship with environmental factors of a large reservoir in subtropic of Southern China: A case study of Xinfengjiang Reservoir	404
Zhang Hui, Peng Yuqiong, Zou Xianni, Zhang Tingting, Wu Chu, Qiao Yongmin & Yang Hongyun	
Characteristics of phytoplankton community structure and its response to hydro-meteorology in summer of Qiantang River	418
Zhang Ping, Guo Chaoxuan, Yu Jie, Quan Qiumei, Yao Jianliang, Wang Jiyi, Ye Xiaorui, Zhu Mengyuan, Sun Qiliang & Zhu Guangwei	
Phytoplankton community structure and driving mechanism of its construction process in autumn in Zhelin Reservoir, Lake Poyang Basin	433
Chen Kang, Meng Zihao, Li Xuemei, Zhu Tingbing, Hu Feifei, Liu Lu, Zhu Yongjiu, Fan Chunlin & Yang Deguo	
Calculation method of submerged plant biomass in small and medium urban rivers: Based on the investigation and analysis of Shanghai City	445
Zhang Qun, Liu Jialin, Zhu Yi, Zhang Chunsong, Song Qing & Cui Xinhong	
Long-term trends and driving factors of <i>Dolichospermum</i> biomass in Lake Taihu	727
Ou Ning, Li Ming, Zhang Wei, Liu Xia, Zhu Mengyuan & Deng Jianming	
Study on the ecological regulation of algal bloom control in the middle and lower reaches of the Hanjiang River	740
Li Jian, Yin Wei, Jia Haiyan, Xin Xiaokang & Wang Chao	
Spatiotemporal emission characteristics and influencing factors of greenhouse-gas emissions in persistent algae-input channels	752
Zhang Lu, Xun Fan, Shen Yue, Ke Fan, Du Xian, Chen Xinfang & Feng Muhua	
Low concentration nitrate-nitrogen improves polyphosphate accumulation in <i>Microcystis</i>	766
Chen Cheng, Zheng Chaoqun, Wang Mengmeng, Yang Shunqing & Yang Liuyan	
Responses of plankton community to water environment changes in karst springs in Wuming Basin, Guangxi Province	777
Wei Liqiong, Guo Fang & Jiang Guanghui	
Optical attenuation characteristics of Lake Daye, Hubei Province based on remote sensing inversion of Landsat 8 OLI	791
Ren Weixiang, Wu Xiaodong, Nie Hongfeng, Xiao Chunlei, Ge Xuguang, Yang Jiuyun & Luo Lu	
Nitrogen and phosphorus control thresholds of cyanobacterial blooms in Lake Taihu	1075
Cao Jing, Tian Zebin, Chu Zhaosheng, Niu Yuan & Zheng Binghui	
Predicting algal blooms in different zones of Lake Chaohu based on satellite-derived algal biomass and meteorological factors	1090
Liu Dong, Zhang Min, Shen Ming, Cao Zhigang, Qi Tianci, Oiu Yinguo & Duan Hongtao	
Dynamic changes and driving factors of phytoplankton functional groups in Baihua Reservoir, Guizhou Plateau	1102
Han Libin, Wang Xing, Li Qihua, Huang Guojia, Ma Yiming, Pan Shaopu & Li Yinjiu	
Phytoplankton in Mitika Wetland, Tibet, China:2. Characteristics of functional groups and their relationship with environmental factors	1115
Pan Chengmei, Liu Yang, An Ruizhi & Ba Sang	
Seasonal changes of phytoplankton community structure and its influencing factors in lakes and reservoirs adjacent to water sources in Shanghai	1127
Wang Sanxiu, Wei Lai, Wang Shuang, Chen Ling & Huang Qinghui	
Comparative study on algae growth prediction models—A case study of Lake Honghu	1140
Guo Zhengqiang, Yan Pingchuan, Xiang Xuanhao & Bao Zhongtao	
Remote sensing assessment of trophic status based on chromaticity angle in Lake Daihai	1150
Wang Fang, Qing Song, Liu Nan, Hao Yanling & Bao Yuhai	

Evolution characteristics and driving factors of water quality and eutrophication of typical lakes in the middle reaches of the Yangtze River from 2016 to 2020	1441
Zhao Yanhui, Li Tao, Huang Bo, Feng Yanling, Lei Mingjun, Zhuo Haihua & Wu Yunli	
The driving forces of sporadic cyanobacterial blooms in oligo-meso trophic waters: A case study of Fangbi-an Reservoir, Nanjing	1452
Chen Wenquan, Meng Yangyang, Shan Yangong, Li Xianghua, Wang Wei & Zhang Min	
Influence of N:P ratio on the phosphorus accumulation and distribution of <i>Microcystis</i> and <i>Scenedesmus</i>	1461
Tan Xiao, Shi Lin, Duan Zhipeng, Zeng Qingfei, Li Niegui & Qiang Juan	
Distribution characteristics of phytoplankton functional groups and their relationship with environmental factors in Taihu Basin	1471
Luo Minna, Sun Beili, Zhu Bingchuan, Song Ting, Cai Kun, Lv Xueyan, Zhang Yong, Zhang Wei, Shi Junzhe, Zhang Hujun, Liu Yan, Lu Xinxin, Fan Yawen & Zhang Junyi	
Effects of different growth form submerged macrophyte assemblages on biomass accumulation and water purification	1484
Hu Ao, Li Yuhui, Yang Yujing, Peng Qiutong & Li Zhongqiang	
Variation characteristics of algae density and water environment factors in Lake Nansi before and after division of the water transfer	1802
Tan Lang, Wang Zongzhi, Bai Ying, Shu Boning & Wang Weiguang	
Seasonal dynamics of phytoplankton and its relationship with environmental factors in Lake Hulun	1814
Qian Xiyi, Li Jinbiao, Ao Wen, Pang Bo, Bao Saru, Wang Qi, Liu Bo & Wang Zenglong	
Phytoplankton community characteristics and the underlying drivers under organic and conventional agricultural management	1828
Du Shaojuan, Wang Jiyi, Guo Chaoxuan, Jonathan Miles Adams, Ren Minglei, Li Kan, Guo Yaping, Du Zongjun & Wang Jianjun	
Real-time monitoring of cyanobacterial blooms dynamics around Lake Chaohu based on video surveillance images	1840
Ma Tengyao, Xiao Pengfeng, Zhang Xueliang, Duan Hongtao & Qiu Yinguo	
Effects of cyanobacterial growth and decline on the <i>phoD</i> -harboring bacterial community structure in sediments of Lake Chaohu	1854
Sun Tingting, Huang Tao, Liu Yuxin & Sun Qingye	
Comparison and applicability analysis of methods for extracting cyanobacteria from Lake Taihu based on GF-6 data	1866
Pan Xin, Yang Zi, Yang Yingbao, Sun Yixuan, Liu Suyi, Xie Wenying & Li Tengteng	
A new data assimilation method coupled with real-time detection of sensitive parameters: An example of phytoplankton modeling in lakes	1877
Zhang Shuai, Peng Fuli, Ji Yulai, Zhang Jing, Zhang Qimou, Li Qi, Qian Rui, Qi Lingyan & Huang Jiacong	
Ecological health assessment of urban lake based on phytoplankton—A case study of Lake Xihu, Tongling, lower reaches of the Yangtze River	1890
Wang Fang, Li Yongji, Ma Tingting, Chen Huihui, Wang Xiaolong, Li Kuanyi & Wu Zhaoshi	
— <i>Biogeochemistry and aquatic environment protection</i>	
Analysis on the variation of total phosphorus concentrations and loads of inflow and outflow rivers from different water resources zones around Lake Taihu	74
Li Qiongfang, Xu Shuhong, Chen Qihui, Jia Xiaowang, Yan Fangjia, Zhu Yuting, Lin Peng & Gao Yun	
Aproposed multi-criteria scoring method for identifying priority pollutants in surface water: A case study of Lake Zhangdu, Hubei Province	90
Ding Oiqi, Gong Xionghu, Wang Zhaode, Jin Miao, Lu Shaoyong, Zhang Lu & Zhao Zhonghua	
The influence of flood discharge on the migration and transformation of typical organic pollutants: A case study on the Danjiangkou Reservoir	108
Zhang Sheng, Su Ziyang, Lin Li, Tao Jingxiang, Pan Xiong & Dong Lei	

The sources characteristics of stable isotope organic carbon and nitrogen in suspended particles and surface sediments in Lake Erhai and their water quality implications	118
Ji Ningning, Liu Yong & Wang Shengrui	
Modeling temporal changes in salinity and fluoride concentration of Lake Ulungur in Xinjiang, China	134
Tong Lihong, Liu Yingjun, Zhang Shuo, Liu Xiaowei, Jia Qicui, Huang Yuefei, Ni Guangheng & Lu Wenzhou	
Organic sulfur compositions and their relationships with iron sulfides in Antarctic lake sediments	142
Shen Lili, Sun Tingting, Guo Xiaoyu & Huang Tao	
Heavy metal pollution analysis and ecological risk assessment of shallow sediments in the coastal area of Lake Taihu	455
Lu Zhihua, Cai Mei, Wang Yuanyuan, Qian Xu & Pan Mingxiang	
Water quality and change pattern of residual water in reservoir environmental dredging and plate and frame dewatering project	468
Zhu Wei, Xu Xiaoge, Hou Hao, Cheng Lin, Li Yuehong, Lin Xiaowei & Wu Yong	
Changes of rivers and lakes water quality in Lake Ebinur Basin, Xinjiang(2005–2020)	478
Zhang Fei, Wang Weiwei, Xin Hongyun, Hao Jinxin, Liu Changjiang & Duan Pan	
Distribution characteristics and source of the main environmental elements in the surface soil of Lake Baiyangdian wetlands	496
Liu Xuesong, Wang Yushan, Wang Xuqing & Yin Dechao	
Stoichiometric characteristics of carbon, nitrogen and phosphorus in surface sediments of different plant communities in Lake Baiyangdian wetland	506
Yin Dechao, Wang Yushan, Qi Xiaofan, An Yonghui, Wang Xuqing & Xu Rongzhen	
Spatiotemporal distribution characteristics and key sources of nitrogen pollution in a typical agricultural watershed based on SWAT model	517
Wang Huiyong, Ti Chaopu, Wang Liangjie, Dong Lei, Xia Yongqiu & Yan Xiaoyuan	
Sources, transportations and variation characteristics of dissolved inorganic carbon in Lake Poyang, China	528
Li Yanhong, Ge Gang & Hu Chunhua	
Aerobic denitrifying bacteria community structure and response of aerobic denitrifying bacteria to dissolved organic matter in the sediments in Lake Baiyangdian in the spring	538
Chen Zhaoying, Zhang Tianna, Zhang Ziwei, Zhou Shilei, Dong Wanjia, Cui Jiansheng & Luo Xiao	
Photodegradation of humic acid from the surrounding soils of a sub-alpine Lake Tiancai	553
An Shilin, Luo Chunyan, Chen Yu & Du Yingxun	
Investigation on vertical composition type of the sediment and the composition of the sediment-water interface in Lake Taihu	804
Hou Hao, Zhu Wei, Xu Xiaoge, Xue Zongpu & Cheng Lin	
GIS-based analysis on the temporal and spatial variation characteristics of nitrogen and its sources in Lake Erhai basin	816
Li Xiaolin, Shuai Yongfang, Zhang Yi, Zheng Yi, Wei Feng & Wei Xiaoxue	
Performance and mechanism of phosphorus removal from micro-polluted water by sulfoaluminate cement	828
Yang Rui, Liu Guo, Huang Yancai, Zhang Qiqi, Xu Fen, Liao Bing & Liu Jing	
Effect of different fluoride concentrations of the overlying water on the release of fluoride and microbial communities of lake sediments	843
Zhu Xiang, Xu Zhipeng, Luo Yidan, Peng Fuquan, Pang Qingqing, Xie Lei, Ma Yushen & Wang Longmian	
Distribution, sources and risk assessment of polycyclic aromatic hydrocarbons (PAHs) in waters of Amu Darya Basin, Uzbekistan	855
Jin Miao, Wu Jinglu, Zhan Shuie & Shakhimardan Shaniyazov	
Effects of soaking <i>Eucalyptus</i> leaves on melanogenic elements distribution, migration and transformation in reservoir sediments of Southern China	1164
Wei Yao, Li Yiping, Zhu Ya, Liu Sixuan, Li Ronghui, Tang Chunyan, Guo Jinchuan, Chen Gang, Huang Yanan, Wang Yaning, Chen Chun & He Jing	

Effects of outlet paths on total phosphorus in Lake Taihu—Optimization analysis of Ximeng River's outlet path	1175
Zhu Wei, Xue Zongpu, Liu Huan, Cheng Lin, Zhang Yu, Zhao Shuai, Feng Ganyu & Wang Ruochen	
The effect of salinity on the exclusion of nitrogen and phosphorus nutrients during freezing	1186
Zhang Cheng, Huang Wenfeng, Li Rui, Yang Huijie, Zhao Wen & Lin Zhanju	
Phosphorus cycle and its influencing factors in different areas of Lake Taihu	1493
Cai Mei, Qian Xu, Wang Yuanyuan, Lu Zhihua & Zhang Wei	
Effects of irrigation-fertilization-tillage on nutrient loading and crop yield in Ulansuhai watershed based on improved SWAT model	1505
Wang Weigang, Shi Haibin, Li Xianyue, Sun Yanan, Zhang Wencong & Zhou Hui	
Effects of land use and landscape pattern characteristics on seasonal surface water quality in a typical reticulated river network area—a case study of Liyang City, Jiangsu Province	1524
Zhang Zhimin, Du Jinglong, Chen Dechao & Zhang Fei	
Spatiotemporal variations and influencing factors of river dissolved oxygen in Dongguan section of Dongjiang River, Pearl River Basin	1540
Xu Chuang, Liu Guangzhou & Chen Xiaohong	
Photochemical and microbial alteration of chromophoric dissolved organic matter (CDOM) in aquatic ecosystems associated with different sources	1550
Zhang Yixuan, Pang Rui, Ren Yuanxin & Cheng Dandong	
Dynamics of nutrient release from solid carbon sources of wetland plants and its effect on the efficiency of nitrogen removal from artificial wetland water bodies	1562
Tan Peiyang, Hou Zhiyong, Xie Yonghong, Li Feng, Yang Yang, Chen Wei & Li Yang	
Equilibrium analysis of dissolved oxygen in Lake Wuliangshuai during ice-covered period	1570
Zhang Fan, Shi Xiaohong, Zhao Shengnan, Hao Ruonan & Zhai Jialun	
Impacts of the Yangtze River Water Transfer Project on water quality of Lake Chaohu in different typical years	1901
Yi Yujun, Guo Yuming & Liu Hongxi	
Distribution characteristics, influencing factors and releasing risk evaluation of phosphorus in the sediment of water-level-fluctuating zone in Lake Nansi	1912
Zhang Zhibin, Xu Guodong, Zhang Xiaorui, Ju Song, Lin Jianwei, Zhang Yanhao, Sun Jie, Wang Shuyi, Zhang Xiangyang & Shi Yanfeng	
Comparative analysis of four universal estimation methods of nitrogen and phosphorus fluxes in lake sediments	1923
Jiang Siqiao, Xie Shutian, Zheng Yuanzhu, Ke Fan, Zhang Chenxu, Feng Muhua & Gao Haiying	
Variation characteristics and influential factors of denitrification potential of typical ponds in the hilly region of the upper Lake Taihu Basin	1937
Wang Huiliang, Cao Heng, Zhang Wangshou, Li Hengpeng, He Peng, Xia Tianyu & Chen Yongjuan	
Spatial-temporal distribution of carbon, nitrogen and phosphorus concentrations and eutrophication evaluation of mountainous small river in a cascaded damming	1949
Que Ziyi, Wang Xiaofeng, Yuan Xingzhong, Wu Shengnan, Yu Lele, Li Hang, Zhang Yuanyuan & Wang Jilong	
Hydrochemical characteristics and water quality variations in the main area of Lake Baiyangdian under extreme precipitation	1968
Han Yuli & Bu Hongmei	
The potential ecological risks and bioavailability of heavy metals in the sediments of Lake Baiyangdian	1980
Liu Cheng, Huang Wei, Gu Xiaozhi, Zhang Lei & Chen Kaining	
Pollution level, distribution characteristics and risk assessment of psychotropic substances and their metabolites in surface water of Lakes Gaoyou, Baoying and Shaobo, Jiangsu Province	1993
Weng Yuxin, Yang Huiting, Chen Huihui, Xu Yan, Gu Xiaohong, Jin Miao, Mao Zhigang & Zeng Qingfei	

—*Freshwater ecology and biodiversity conservation*

Long-term changes in the functional trait composition and diversity of fish assemblages in eastern plain lakes under the regime of river-lake connectivity loss	151
Zheng Peng, Jiang Xiaoming, Cao Liang, Wang Jun & Jiang Zhuoqun	
Metabolism of exogenous and endogenous dissolved organic carbon for bacterioplankton production and respiration in reservoirs	162
Han Yixuan, Li Biao, Xun Fan, Gao Peixin, Mao Zhendu, Tao Ye & Xing Peng	
Effect of food and copepod trophic level on zooplankton community structure in a subtropical stratified reservoir	174
Chen Huihuang, Wang Wenping, Xue Yuanyuan, Gao Xiaofei, Jin Lei & Yang Jun	
Diet variations of <i>Procambarus clarkii</i> and <i>Macrobrachium nipponense</i> in natural and modified wetlands at West Dongting Lake	184
Tan Wenzhuo, Li Bin, Wang Yuyu, Xiao Yayu, Lu Xiuyuan, Yang Liping, Lei Guangchun, Cai Jiaohui & He Muying	
Spatio-temporal variation with influencing factors for fish functional groups in East Lake Taihu after the net removal	569
Gu Xiankun, Liu Yanshan, Tang Shengkai, Li Daming, Zhang Tongqing, Zeng Qingfei, Mao Zhigang, Chen Huihui & Gu Xiaohong	
Effects of <i>Exopalaemon modestus</i> on nutrient levels and plankton communities in spring and Summer subtropical lakes and reservoirs: A microcosm experiment	582
Ning Xiaoyu, Zhang Lei, Chen Kunquan, Han Cai'an, Li Qisheng, Li Kuanyi, He Hu & Zhao Biying	
Identification of zooplankton carbon sources using fatty acid biomarkers in lakes and reservoirs at different trophic states in Nanjing and surrounding areas	590
Ma Jingjing, Li Tingzhen, Li Kuanyi, Su Yaling & Liu Zhengwen	
Distribution characteristics and responding to ecological environment of terrestrial ostracod on the Qinghai-Tibetan Plateau	868
Han Chunmei, Li Xiangzhong, Fan Qishun, Wei Haicheng & Cheng Yaping	
Variations in phytoplankton primary productivity in aquaculture ponds with <i>Litopenaeus vannamei</i> from subtropical estuary in southeast China	881
Hong Yan, Yang Ping, Tong Chuan, Zhao Guanghui, Li Ling, Tang Chen, Zhang Yan, Tan Yingying & Ruan Manjing	
Variations in the activities and stoichiometry of soil extracellular enzyme along the elevation gradient at the <i>Carex</i> lakeshore of Lake Poyang wetland	894
Huang Xingyun, Wen Xiuting, Zhang Yan, Rong Jun, Nie Ming, Zheng Bofu & Shen Ruichang	
The community characteristics and functions of methanotrophs in karst Lake Caohai, Guizhou Plateau	906
Ai Jia, Lv Yang, Zhong Xiong, Li Yancheng, Li Jiang & Yang Aijiang	
Effects of ecological water supplement on vegetation dynamics in Lake Baiyangdian wetland	1197
Tang Caihong, Chen Dongming, Yi Yujun, Zhou Yang & Zhang Shanghong	
Impact of water supply of the Three Gorges Reservoir on the foraging habitat of <i>Grus leucogeranus</i> in Lake Dongting during the dry season	1208
Dai Lingquan, Wang Yu, Tang Zhengyang, Dai Huichao, Ren Yufeng, Chang Manqi, Wu Qian & Mao Jingqiao	
Effects of the first ecological operation of cascade reservoirs in the middle and lower reaches of Hanjiang River on the natural reproduction of pelagic fish	1219
Lei Huan, Chen Feng, Xie Wenxing, Chen Jinsheng, Jin Yao & Huang Daoming	
Diversity and network structure of epiphytic bacterial communities on different submerged macrophytes	1234
Ang Zhengqiang, Sun Xiaojian, Cao Xinyi, Zhou Qi, Guan Baohua & Zeng Jin	
Influence of hydrological and morphological changes on the habitats of <i>Miscanthus lutarioriparius</i> and <i>Phragmites australis</i> in a river flood plain: A case study of Wuhan reach of the Yangtze River	1250
Xiong Haibin, Sun Zhaohua, Chen Li, Yang Xuhai, Zhou Xinyue, Li Zhiqing & Zhou Weixin	

Feeding preferences of red swamp crayfish ( <i>Procambarus clarkii</i> ) grazing on six living and decaying submerged macrophyte species	1262
Luo Yijuan, Zhang Zehui, Gao Jian, Jiao Yiyang, Wang Heyun & Liao Mingjun	
Application of ocean color remote sensing products in estimation of fishing production potential in Lake Qinghai	1271
Ban Xuan, Shu Peng, Qi Tao, Long Aoyun, Qi Hongfang, Du Hao, Yang Jianxin, Shi Jianquan, Yang Haile & Li Junyi	
Community composition of testate amoebae and its relationship with environmental factors—A case study of Hutuohe wetlands, Shanxi Province	1284
Wang Chunling, Hu Jie, Zhao Xinyu, Wang Tingting, Gou Kuixian & Zhen Zhilei	
Species diversity, spatial distribution and protection strategies of wintering waterbirds after extreme summer flood in Lake Poyang	1584
Zhang Chao, Li Yankuo, Ren Qiong, Shan Jihong, Wang Xianfang, Fang Pengjun, Shao Ruiqing, Shen Jin, Qian Lei, Li Anmei & Ta Qi	
Community structure and behavioral characteristics of wintering dabbling ducks ( <i>Anas</i> ) at Lake Shengjin, the middle and lower reaches of the Yangtze River floodplain	1596
Fan Shaojun, Zhou Lizhi & Yu Chao	
Swimming ability of fifteen target fish from eight hydropower stations in China	1608
Ke Senfan, Jin Zhijun, Li Zhimin, Lei Qingsong, Wang Yongmeng, Shi Xiaotao & Tu Zhiying	
Seasonal characteristics of nestedness pattern and interaction of plankton assemblages in East Lake Taihu	1620
Hu Yang, Zhang Yazhou, Jiang Xingyu, Shao Keqiang, Tang Xiangming & Gao Guang	
Zooplankton community structure and influencing factors in Weihe River mainstem and its tributaries from the northern foot of Qinling Mountains	1630
Chen Yue, Pan Baozhu, Wu Li, Hu En, Zhao Gengnan & Zhang Sen	
Spatial distribution of bacterioplankton community composition and their diversity in Lake Fuxian during thermal stratification period	1642
Zhou Tianxu, Luo Wenlei, Da Jun, Wu Qiong, Yu Chunyan & Li Huabing	
Wintering waterbirds diversity and their impact factors in coastal lake wetlands of the Yangtze River in Jiangsu Province	2005
Zhang Yong, Shi Hui, Liu Luting, Shen Wei & Zhao Zixi	
The succession of submerged vegetation in the northern part of Lake Fuxian and its ecological indication significance(1987–2020)	2016
Zhu Kexin & Wang Rong	
Species composition, spatial distribution characteristics and topographic attribution of vegetation in the water-level-fluctuating zone of the Nuozhadu Reservoir in the Lancang River Basin	2025
Jiang Weiwei, Li Wentao & Xiao Henglin	
Spatial-temporal characteristics of zooplankton community structure and analysis for the impact factors in the Shanmei Reservoir, Fujian Province	2039
Liu Qiao, Liu Zhiyang, Wang Jiangbin, Liao Chuansong, Li Junfeng, Guo Chao, Wang Jingbin, Xiong Mantang, Zhang Tanglin, Guo Chuanbo & Liu Jiashou	
Effects of littoral zone utilization on benthic macroinvertebrate community structure: A case study of Lake Hongze	2055
Li Mingjie, Zhang You, Zhang Ying, Xu Jinqian, Hu Kaiyuan, Cai Yongjiu, Gong Zhijun, Xu Delan & Li Kuanyi	
Bacterial diversity and community composition in lake water and sediment of Lake Daihai	2070
Zhang Yuqing, Shao Keqiang, Hu Yang, Ding Yanqing, Zhang Enlou, Gao Guang & Tang Xiangming	
L-system based dynamic root growth model formulation of aquatic plants	2083
Huang Xiaolong, Li Songyang & Li Kuanyi	
The characteristics of spatial-temporal distributions of fish resources in Lake Jingpo based on hydroacoustic assessment	2095
Song Dan, Du Xue, Jin Xing, Liu Hui, Ming Kun, Wang Le, Wang Huibo, Zhao Chen & Huo Tangbin	

—*Catchment hydrology and water resources security*

Critical streamflow for water supply safety based on the withdrawal avoiding saltwater model in coastal areas—taking the water supply for Zhuhai and Macao in the Guangdong-Hong Kong-Macao Greater Bay Area as a case	194
Tu Xinjun, Wu Haiou, Chen Xiaohong, Lin Kairong & Lai Rongbiao	
Dynamic ecological water demand based on long-term ecological water consumption in Lake Daihai, 1975–2020	207
Ma Jiali, Liu Dongwei, Wang Jie, Cheng Yingnan, Liu Huamin & Wang Lixin	
Climate change and its effects on the water level of Lake Baikal region since the 1980s	219
Li Xiang, Zhang Xueqin & Xu Xiaoming	
Impact of climate change and human activities on the changes of ecological flow indicators in the Lake Poyang Basin since 1960s	232
Cao Yuxian, Xu Ligang, Fan Hongxiang, Mao Zhiyu, Cheng Junxiang, Wang Dianchang & Wu Yakun	
Composition of water sources and transformation relationship between surface water and groundwater in the Fenhe River estuarine wetland of the middle Yellow River	247
Xu Xiuli, Li Yunliang, Gao Bo & Zhang Yongbo	
The impacts and its contribution rate of urbanization on extreme precipitation, 1976–2015: A case study in the Lake Taihu Plain region	262
He Yuuxiu, Xu Youpeng, Li Ziyi, Wang Qiang, Lu Miao & Gao Bin	
Historical records for the brine levels of Dingbian salt lakes (northern Shaanxi Province) and climatic implications, 1265–1949	272
Dong Lingxiao & Fei Jie	
Abnormal fluctuation of water level in the Chenglingji reach of the middle Yangtze River during flood seasons, 2016–2020: Influencing factors and filtering correction	286
Cheng Haiyun, Xiang Tianyuan & Tang Cong	
Temporal and spatial distribution of bank retreat in the Jingjiang reach of the Yangtze River after the Three Gorges Project operation and its influence on channel adjustment	296
Xia Junqiang, Liu Xin, Deng Shanshan, Zhou Meirong, Li Zhiwei & Peng Yuming	
Comparison of methods to derive river water temperature using thermal infrared imagery: A case study of the upper Yangtze River catchment	307
Shi Xi, Xia Junqiang & Sun Jian	
Spatial downscaling method and application of CMIP5 global climate models based on improved U-Net in Lake Poyang Basin	320
Li Kecheng, Lu Jianzhong, Zhang Kerui, Lu Chengyu, Chen Pu & Yuan Mingkun	
Lake ice phenology variations and influencing factors of Selin Co from 2000 to 2020	334
Tai Xuenan, Wang Ninglian, Wu Yuwei & Zhang Yujie	
Water shortage and countermeasures of irrigation area around Lake Poyang in dry seasons	601
Li Zhenqi, Cheng Heqin, Li Jiren, Xiang Shiyue & Teng Lizhi	
Characteristics of discharge frequency and their effects on flood channel formation in the middle and lower reaches of the Yangtze River before/after the impoundment of the Three Gorges Reservoir	616
Zhou Weixing, Sun Zhaohua, Zhou Kun, Li Zhiqing & Chen Li	
Join ecological operation optimal strategy of control and re-regulation reservoirs: A case study of Three Gorges–Gezhouba cascade reservoirs	630
Li Youkun, Lin Junqiang, Qin Xin, Liu Yi, Ren Yufeng & Zhang Xiaoguang	
A method for wave-turbulent velocity decomposition based on spectral analysis	643
Duan Yuxin, Zhang Zhanfei & Zhang Yinghao	
Differences analysis of flood simulations and response evaluation of impact factors in semi-arid areas	652
Liu Yuhuan, Li Zhijia, Liu Zhiyu, Luo Yun & Huo Wenbo	
Greenhouse gas emission rate under discharge condition by numerical simulation	664
Huang Juping, Ou Yangming, Li Ran, Feng Jingjie & Li Zhe	



Evaluation and forecast of coupling coordination of water resources, economy and ecosystem in the Yellow River Basin of Henan Province	919
Wang Shunsheng, Yang Jinyue, Wang Aili, Chen Chunlai & Liu Tengfei	
Analysis on flood control contribution of the Three Georges Reservoir for the Lake Dongting area under basin-wide severe floods of Yangtze River	935
Xu Weihong, Zhang Shuanghu, Li Na & Jiang Yunzhong	
Characteristics of runoff in the three outlets along Jingjiang River and the influence of water supplement by the reservoirs during 1956–2020	945
Zhang Dongdong, Dai Minglong, Li Yanqing & Wang Han	
Water level retrieval for the past and prediction for the next 30 years at Lake Fuxian	958
Li Jialong, Li Huiyun, Luo Liancong, Gong Falu, Zhang Rufeng, Liu Fenglong, Wu Songtao & Luo Biyu	
Stratification and mixing characteristics in Lake Wuliangshuai during ice-covered period and its impacts on metabolic rates	972
Yang Huijie, Huang Wenfeng, Zhang Cheng, Li Zhijun & Lin Zhanju	
Fast-changing wind waves and their environmental effects in Lake Chaohu	985
Zhang Yihui, Hu Yuemin, Peng Zhaoliang, Hu Weiping & Zhu Jing	
Experimental study on the evolution characteristics of near-surface airflow in limited waters	994
Gao Ang, Wu Xiufeng, Wu Shiqiang, Dai Jiangyu, Wang Fangfang & Wu Chenhui	
Remote sensing monitoring of ecological changes in Lake Yueliang wetland and its response to inundation frequency in Western Songnen Plain during 1994–2018	1294
Li Xiaodong, Song Kaishan & Yan Shougang	
Influence of spatio-temporal distribution of design storm on Lake Taihu flood level	1308
Xu Tianyi	
Copula based hydrological drought probability analysis in the Lake Dongting-catchment-Yangtze River system	1319
Li Zhen, Li Xianghu, Zhang Dan & Lin Yaling	
Diversion attribute of the branch channels and shoal-channel evolution mechanism in the Yizheng section of the lower reaches of the Yangtze River	1335
Fang Juanjuan, Fu Jing, Yang Yunping, Xu Hui, Jia Menglin, Wang Jianjun & Xiong Hui	
Characteristics and influence factors of carbon dioxide efflux from Lake Hongze under different hydrological scenarios	1347
Zhu Junyu, Peng Kai, Li Yuyang, Liu Chaorong, Zhou Lei, Zhou Yongqiang & Ding Yanqing	
Evaluation method of regional water resources carrying capacity based on semipartial connection number and dynamic subtraction set pair potential	1656
Li Zheng, Jin Juliang, Cui Yi, Zhou Rongxing, Ning Shaowei, Zhou Yuliang & Zhou Liangguang	
Optimum ecological water level of water-carrying lake based on the relationship between water quality and water level	1670
Zhang Tianyan, Dong Zengchuan, Luo Yun, Shi Qingyi, Han Yalei, Cui Can, Zhou Qiang & Zhang You	
Hydrological drought evolution and its response to meteorological drought in the middle-lower reach of the Yangtze River triggered by Three Gorges Reservoir	1683
Li Zhengrong, Peng Tao, Lin Qingxia, Dong Xiaohua, Liu Ji, Chang Wenjuan, Yu Dan & Wang Gaoxu	
Evaporation variability and its control factors of Lake Taihu from 1958 to 2017	1697
Jing Sijia, Xiao Wei, Wang Jingyuan, Zheng Youfei, Wang Wei, <span style="border: 1px solid black; padding: 0 2px;">Liu Qiang</span> , Zhang Zhen & Hu Cheng	
Quantitative analysis of influence of converge jacking in Lake Poyang on the water level in Hankou Section of Yangtze River	1712
Zhang Mingyue, Deng Pengxin, Wang Leizhi, Bing Jianping, Zhang Dongdong & Cheng Xiaocui	
Reconstruction of the depletion process of lake water resources in semi-arid areas under strong human activities—Taking Lake Daihai as an example	2105
Yang Tengteng, Wu Tingfeng, Ji Xiaoyan, Qin Boqiang, Luan Chengmei, Hu Runtao & He Xiangyu	

Runoff evolution and wetland ecological response in Lake Baiyangdian Basin in recent 60 years	2122
Yin Dechao, Wang Xuqing, Wang Yushan, Wang Xiaoyan, Wang Xi, Wu Bin, Liu Xiaoxiao & Gong Lei	
Temporal and spatial variation of rainfall characteristics under high urbanization in the Lake Taihu Plain	2134
Yu Zhihui, Liu Pengfei, He Yuxiu, Xu Youpeng, Ren Xiaodong, Zhu Liguo & Xu Xing	
Spatial-temporal dynamic monitoring of sand dredging activities based on GF-1 WFV in Lake Poyang during 2013–2020	2144
Zheng Yongchao, Lu Jianzhong, Chen Liqiong & Chen Xiaoling	
Variation characteristics of dissolved oxygen and metabolic rate in lakes during the ice-covered period	2156
Yang Wenhuan, Feng Dongdong, Yang Fang, Li Weiping, Zhou Xin, Yao Zhi & Wang Lele	
<i>—Lake sedimentation and global change</i>	
Eco-environmental evolution process during the past century in Lake Changdang, Lake Taihu Basin	675
Liu Weigan, Lin Qi, Zhang Ke & Shen Ji	
Environmental changes and human activities over the last about 220 years revealed by the pollen record of Lake Lianhuan in Heilongjiang Province	684
Wang Xiaoli, Xiao Haifeng & Xiao Xiayun	
<i>—Sedimentation and global change</i>	
Formation model of riverside plains in Wuhan reach of the Yangtze River: River-lake and island-land interaction transformations in northern Wuchang	1006
Li Chang'an, Zhang Yufen, Li Guoqing, Guo Rujun & Chen Yu	
Investigating spatiotemporal dynamics of Lake Poyang wetland for the recent century	1018
Li Bing, Wan Rongrong, Yang Guishan, Tan Zhiqiang, Wang Dianchang & Wu Xinghua	
Response of chironomid assemblages to the changes of wetness in Dajiuhe Peatland of Hubei Province during the past 400 years	1030
Hou Guilin, Cao Yanmin, Tian Wenlong, Pan Deng, Shen Shengman & Chen Xu	
Discussion on metallogenic model and prospecting direction of Pleistocene gravel brine Potassium deposit in western Qaidam Basin	1043
Li Hongpu, Hou Xianhua, Zheng Mianping, Fan Fu, Liu Xixi & Wang Shuli	
Lake environmental changes over the past 5000 years recorded by multiple proxies of sediments in Lake Fuxian, southwest China	1359
Yang Chunhe, Yang Huan, Zheng Pingbo, Duan Lizeng, Zhang Xiaonan, Zhang Hucai, Shen Caiming & Sun Huiling	
Environmental evolution of Lake Taibai (Hubei Province) over the past century revealed by cladoceran microfossils	1372
Lin Yongquan, Dong Xuhui, Liao Yuejun, Li Yan, Yang Xiangdong & Jeppesen Erik	
Application of XRF core scanning in varved lake sediments: A case study on Lake Xinluhai in the southeastern margin of Qinghai-Tibetan Plateau	1723
Qin Rong, Liu Liyuan, Wang Jingjing, Liu Xingqi, Zhang Qi & Feng Shengnan	
Cladoceran community succession and identification of anthropogenic signals since 1950s in Lake Tianchi in Yunlong County, northwest Yunnan	1735
Suo Qi, Chen Guangjie, Kong Lingyang, Xu Huiming, Li Jing, Zhang Tao, Wang Lu, Zhou Qi & Zheng Xin	
Synchronic changes of lake organic and inorganic carbon burial in response to catchment development over the past century: A case study of Shilin Karst area	1751
Wang Lu, Chen Guangjie, Huang Linpei, Kong Lingyang, Li Rui, Han Qiaohua, Li Ping, Suo Qi & Zhou Qi	
<b>Nature probing</b>	
Magical spherical ice (ice balls, ice eggs)	695
Xie Fei, Lu Peng, Cheng Bin, Yang Qian & Li Zhijun	
Cyanobacterial blooms in yellow	1384
Song Ting, Zhang Junyi, Li Xuwen, Zhu Jiamin & Hu Jun	