

水 利 学 报

SHUILI XUEBAO

第 51 卷 2020 年 第 9 期(月刊)

目 次

水循环视角下的黄河流域生态保护关键问题	王 浩 胡 鹏(1009)
论黄河河道平衡输沙量临界阈值与黄土高原水土流失治理度	胡春宏 张治昊(1015)
流域系统科学初探	江恩慧 王远见 田世民 李军华 许琳娟 张向萍(1026)
黄河流域生态保护和高质量发展制约因素与对策——基于“要素-空间-时间”三维分析框架	杨开忠 董亚宁(1038)
黄河流域近 40 年气候变化的时空特征	黄建平 张国龙 于海鹏 王闪闪 管晓丹 任 钰(1048)
黄河流域作物生产与消费实体水-虚拟水耦合流动时空演变与驱动力分析	卓 拉 栗 萌 吴普特 黄红荣 刘艺琳(1059)
黄河流域干旱区湖泊冰封期浮游植物群落结构特征及影响因子研究	王司阳 张笑欣 田世民 曹永涛 陈融旭(1070)
水系连通性的指标体系及其应用	王延贵 陈 吟 陈 康(1080)
黄河什四份子弯道冰期水流及冰塞特征研究	罗红春 冀鸿兰 郜国明 张宝森 牟献友(1089)
黄河河口生态需水研究进展与展望	于守兵 凡姚申 余 欣 窦身堂(1101)
黄河下游宽滩区滞洪沉沙功能与减灾效应二维评价模型及其应用	王远见 江恩慧 李新杰 张向萍(1111)
小浪底水库下游浮游生物及细菌群落对水沙调控的响应规律	宋 劼 易雨君 周 扬 贾文飞 高艳宁 李军华(1121)
滩区自然-经济-社会协同的可持续发展模式	岳瑜素 王宏伟 江恩慧 彭绪庶 时芳欣(1131)
黄河泥沙对氮迁移转化的影响及环境效应	夏星辉 王君峰 张 翎 张思波(1138)
大暴雨作用下黄土高原典型流域水土保持措施减沙效益研究	肖培青 王玲玲 杨吉山 焦 鹏 王志慧(1149)
近 20 年黄河流域陆表水域面积时空变化特征研究	高吉喜 王永财 侯 鹏 万华伟 张文国(1157)
黄河下游高村-陶城铺河段边界阻力能耗与河床稳定性分析	白玉川 李 岩 张金良 白 洋 冀自清(1165)
基于黄河鲤栖息地水文-生态响应关系的黄河下游生态流量研究	王瑞玲 黄锦辉 葛 雷 冯慧娟 李若男 沈红保(1175)

JOURNAL OF HYDRAULIC ENGINEERING

Vol. 51 No. 9, 2020

(Monthly)

CONTENTS

Key issues of ecological conservation in the Yellow River basin from a water cycle perspective.....	
.....	WANG Hao HU Peng (1009)
Discussing of the critical threshold of equilibrium sediment transport in the Yellow River and the degree of soil erosion control in the Loess Plateau.....	HU Chunhong ZHANG Zhihao (1015)
Exploration of watershed system science	
.....	JIANG Enhui WANG Yuanjian TIAN Shimin LI Junhua XU Linjuan ZHANG Xiangping (1026)
Research on restricting factors and countermeasures of ecological protection and high-quality development of Yellow River basin—Analysis based on the multi-dimensional framework of "element-space-time"	
.....	YANG Kaizhong DONG Yaning (1038)
Characteristics of climate change in the Yellow River basin during recent 40 years	
.....	HUANG Jianping ZHANG Guolong YU Haipeng WANG Shanshan GUAN Xiaodan REN Yu (1048)
Assessment of crop related physical-virtual water coupling flows and driving forces in Yellow River basin	
.....	ZHUO La LI Meng WU Pute HUANG Hongrong LIU Yilin (1059)
Study on phytoplankton community structure characteristics and its influencing factors of lakes in arid regions of the Yellow River basin during ice-sealing period	
.....	WANG Siyang ZHANG Xiaoxin TIAN Shimin CAO Yongtao CHEN Rongxu (1070)
Index system of water system connectivity and its application	WANG Yangui CHEN Yin CHEN Kang (1080)
Study on the characteristics of flow and ice jam in Shisifenzi bend in the Yellow River during the freeze-up period	
.....	LUO Hongchun JI Honglan GAO Guoming ZHANG Baosen MOU Xianyou (1089)
Advances and prospects of ecological water demands in the Yellow River Estuary	
.....	YU Shoubing FAN Yaoshen YU Xin DOU Shentang (1101)
2D evaluation model of flood detention and sediment silting and disaster alleviation effects in the wide floodplain area of the Lower Yellow River and its application.....	
.....	WANG Yuanjian JIANG Enhui LI Xinjie ZHANG Xiangping (1111)
Response of river plankton and bacterial community distribution to environmental factors under the influence of water and sediment regulation of Xiaolangdi Reservoir, Yellow River.....	
.....	SONG Jie YI Yujun ZHOU Yang JIA Wenfei GAO Yanning LI Junhua (1121)
Sustainable development model of floodplain based on coordination of nature, economy and society	
.....	YUE Yusu WANG Hongwei JIANG Enhui PENG Xushu SHI Fangxin (1131)
Effects and environmental implications of suspended sediment on the transportation and transformation of nitrogen in the Yellow River	
.....	XIA Xinghui WANG Junfeng ZHANG Ling ZHANG Sibao (1138)
Study on sediment reduction benefits of soil and water conservation measures in typical watersheds in the Loess Plateau under the heavy rainfall	
.....	XIAO Peiqing WANG Lingling YANG Jishan JIAO Peng WANG Zhihui (1149)
Temporal and spatial variation characteristics of land surface water area in the Yellow River basin in recent 20 years	
.....	GAO Jixi WANG Yongcai HOU Peng WAN Huawei ZHANG Wenguo (1157)
Energy dissipation of boundary resistance and stability analysis of riverbed of Gaocun to Taochengpu reach in lower Yellow River.....	
.....	BAI Yuchuan LI Yan ZHANG Jinliang BAI Yang JI Zhiqing (1165)
Study of ecological flow based on the relationship between cyprinid habitat hydrological and ecological response in the lower Yellow River	
.....	WANG Ruiling HUANG Jinhui GE Lei FENG Huijuan LI Ruonan SHEN Hongbao (1175)

EDITORIAL BOARD

HONORARY PRESIDENTS

SUO Lisheng HU Siyi LIU Ning

CONSULTANTS

LU Youmei ZHU Erming GAO Anze ZHANG Zezhen CHEN Bingxin GAO Jizhang

PRESIDENT

KUANG Shangfu

VICE PRESIDENTS

WU Hongwei TANG Xinhua LI Jinxiu JIA Jinsheng

MEMBERS

CAI Ximing(U.S.A) CAI Yuebo Chandra Madramootoo(Canada) CHEN Jin CHEN Houqun CHEN Kaiqi CHEN Qiuwen
CHEN Minjian CHEN Shengshui CHEN Zuyu CHENG Guoyin CHENG Xiaotao DENG Jiaquan DING Liuqiang
Desmond Walling(UK) DU Leigong FANG Hongwei FENG Ping FENG Shaoyuan FNEG Shurong GAN Hong
GAO Zhanyi GU Hong GUO Jun GUO Qizhong(U.S.A) GUO Shenglian GUO Xinlei HE Jianbing HU Chunhong
HUAI Wenxin HUANG Jiasheng HUANG Qiang HU Zuoliang Hyo-Seop Woo (Korea) JIA Jinsheng
JIANG Naiqian JIE Yuxin JIN Juliang KANG Shaozhong KONG Xianjing KUANG Shangfu LI Jiren LI Jia
LI Jinxiu LI Jiusheng LI Wanhong LI Yun LI Yuanyuan LI Zantang LIAN Jijian Xu Liang(U.S.A) LIU Handong
LIU Xiaoyan LIU Yulong LIU Zhiping LU Jinyou LU Wenxi LU Jun MA Hongqi MA Jianhua NI Jinren
NIU Xinqiang Norihisa Matsumoto (Japan) PENG Caide PENG Jing QIN Boqiang Roger Falconer (UK)
SHEN Zhenzhong SHU Longcang TANG Xiangqiang TANG Xinhua TIAN Bin WANG Fujun WANG Guangqian
WANG Hao WANG Jianhua WANG Licheng WANG Lizhong WANG Renkun WANG Wensheng
WANG Xiaohong WANG Yicheng WANG Xiaogang WEI Qiwei WU Hongwei WU Pute WU Zhongru
XIA Jun XU Zeping XU Zongxue XU Weilin YANG Dawen YANG Kailin YANG Xiaodong YAO Shuanxi
YAO Wenyi YU Qiyang ZHANG Chaoran ZHANG Chunsheng ZHANG Guoxin ZHANG Limin ZHANG Jian
ZHANG Jianmin ZHANG Jianyun ZHANG Yongbo ZHANG Zongliang ZHANG Qing ZHENG Peiming
ZHONG Denghua ZHONG Pingan ZHONG Zhiyu ZHOU Xiaoguang ZHU Bofang ZHU Xingming ZUO Qiting

CHIEF EDITOR

CHENG Xiaotao

DEPUTY CHIEF EDITORS

GAN Hong XU Zeping