

中文核心期刊



ISSN 1005-3832

CODEN SZHAAZ

水产学杂志

CHINESE JOURNAL OF FISHERIES

第 36 卷

Vol. 36

第 3 期

No. 3

2023

主办单位

中国水产科学研究院黑龙江水产研究所

水产学杂志

第三十六卷
第三期

二〇二三年六月

中国水产科学研究院黑龙江水产研究所

CHINESE JOURNAL OF FISHERIES

Vol. 36, No. 3, Jun. 2023

CONTENTS

Articles

- Transcriptome Sequencing and Functional Annotation Analysis of Green Alga *Dunaliella salina* Exposed to Copper Stress
..... LING Na, XU Guiguo, LI Weilu, LIU Xiaorui(1)
- Differential Expression Analysis of Muscle Protein From the Common Carp (*Cyprinus carpio*) Micro-injected With Total DNA of Chinese Shrimp (*Fenneropenaeus chinensis*) YAN Xuechun, ZHANG Ying, LUAN Peixian(10)
- Effects of Chinese Herbal Medicine *Pseudostellaria heterophylla* and its Compounds on Antioxidant Enzyme Gene Expression Levels in Different Organs of Large Yellow Croaker --- SHI Xiaoli, ZHENG Deyao, NI Jiancheng, HUANG Weiqing, ZHONG Liqiang, YE Zuyun, RUAN Shaojiang(16)
- Establishment of Microfluidic Chip Technique for Detection of Four Pathogenic Microorganisms in Shrimp
..... LIU Yang, CHEN Benlong, WU Dongxue, HUANG Chen, WANG Naifu, LI Dandan, WANG Suijia, LU Xiandong, LIU Yanhong(23)
- Effects of Bitter Melon *Momordica charantia* Saponins on Growth, Digestion and Hepatopancreas Health of Juvenile Songpu Mirror Carp (*Cyprinus carpio* Songpu) Fed High-carbohydrate Diets FAN Ze, WU Di, LI Chenhui, LI Jinnan, LIU Qingwu, WANG Liansheng(29)
- Screening, Identification and Inhibitory Effect on Aquaculture Pathogens of *Lactobacillus* sp. N5 From Intestine of Turbot *Scophthalmus maximus*
..... BAO Ruixuan, ZHOU Haolong, FANG Zaixi, LU Jing, YU Mingsheng, WANG Shujun(38)
- Acute Toxicity of Chlorantraniliprole to Juvenile and Adult Chinese Mitten Handed Crab (*Eriocheir sinensis*)
WU Song, HUANG Xiaoli, TAO Yue, QIN Dongli, CHEN Zhongxiang, HAO Qirui, GAO Lei, WANG Haitao, SUN Yanchun, WANG Peng,
..... ZHANG Ying(46)
- Effects of pH and Culture Methods on Growth and Development of Gametophytes in Kelp *Saccharina japonica*
..... CHEN Shuxiu, LI Xiaojie, LI Xia, SUN Juan, ZHAO Nan, SHI Liang(52)
- Characteristics of Fish Community Structure of Summer and Autumn in Nansi Lake
..... CONG Xuri, DONG Guancang, LI Xiuqi, KE Han, WANG Yanan, SUN Lufeng, MA Rufang, WANG Qingqing(60)
- Correlation Analysis of Morphological Traits and Body Weight of Spotted Mandarinfish *Siniperca scherzeri* Under Artificial Cultivation ... TIAN Tian(68)
- Embryonic and Postembryonic Development of Roughskin Sculpin *Trachidermus fasciatus*
..... LIU Jiaqi, HE Zhongwei, LI Mengchao, XU Zixiong, LI Hongbin, WANG Guixing, WANG Yufen, GONG Chunguang, LIU Yufeng(75)
- Relationship Between Phytoplankton Community Structure and Environmental Factors in Dongfanghong Reservoir
..... LIU Fei, WANG Xinyue, GE Jianmin, ZI Fangze, WANG Chengxin, SONG Yong(82)
- Effects of Seven Frozen or Live Foods on Survival and Growth of Juvenile Medusa of Atlantic Sea Nettle (*Chrysaora quinquecirrha*)
..... LI Da, WANG Wenzhang, ZHOU Qiang, WANG Wei(89)

The Column of Ecological Fishery

- Effect of Ecological Clean Water Holding on Removal of Earthy Odor and Improvement of Nutrient Compositions in Largemouth Bass *Micropterus salmoides* ZHOU Dan, NI Meng, LIU Mei, ZOU Songbao, XU Qing, GU Zhimin, YUAN Julin(96)
- Intestinal Microbiota of Topmouth Gudgeon *Pseudorasbora parva* in Aquaponic Systems
..... ZHANG Jiye, WANG Shixing, LIU Dongjiao, DU Xinke, MU Jinhua, SHEN Xuhong(104)

Reviews

- Research Progress on Cytokines as Immune Adjuvant of Aquaculture Vaccines
..... WANG Xiaoyu, JIANG Xinyu, ZHOU Yong, ZENG Lingbing, KONG Xianghui(112)
- A Review: the Research Development of Fish Cell Lines
..... JING Hongli, KONG Yufang, YUANG Xiangfen, ZHANG Min, WANG Na, CHEN Dongjie, WU Shaoqiang(120)

《水产学杂志》第 36 卷第 3 期

2023 年 6 月

目 录

研究论文

- 杜氏盐藻对铜胁迫的转录组测序及功能注释分析 凌娜,徐贵国,李玮璐,刘小瑞(1)
- 显微介导中国对虾基因鲤肌肉蛋白差异表达分析 闫学春,张颖,栾培贤(10)
- 太子参及其复方中草药对大黄鱼几种抗氧化酶基因表达的影响
..... 史晓丽,郑德耀,倪建成,黄伟卿,钟李强,叶祖云,阮少江(16)
- 微流控芯片技术检测虾四种病原微生物方法的建立
..... 刘洋,陈本龙,吴冬雪,黄晨,王乃福,李丹丹,王绥家,卢先东,刘艳红(23)
- 苦瓜皂苷对饲喂高糖饲料松浦镜鲤幼鱼生长、消化及肝脏健康的影响
..... 范泽,吴迪,李晨辉,李晋南,刘庆武,王连生(29)
- 大菱鲂肠道乳杆菌 *Lactobacillus* sp. N5 的筛选鉴定及其抑制水产病原菌的研究
..... 包瑞璇,周皓隆,方再郗,卢静,吕明生,王淑军(38)
- 氯虫苯甲酰胺对中华绒螯蟹的急性毒性研究 吴松,黄晓丽,陶月,覃东立,陈中祥,郝其睿,高磊,王海涛(46)
- 不同 pH 和培养方式对海带配子体生长发育的影响 陈书秀,李晓捷,李霞,孙娟,赵楠,史良(52)
- 南四湖夏秋季鱼类群落结构特征研究 丛旭日,董贯仓,李秀启,客涵,王亚楠,孙鲁峰,马汝芳,王晴晴(60)
- 人工养殖斑鳊(*Siniperca scherzeri*)形态性状与体质量的相关性研究 田田(68)
- 松江鲈胚胎及胚后发育研究 刘佳奇,何忠伟,李猛超,徐子雄,李鸿彬,王桂兴,王玉芬,宫春光,刘玉峰(75)
- 东方红水库浮游植物群落特征及与主要环境因子的关系 刘斐,王新月,葛建民,訾方泽,王程欣,宋勇(82)
- 7 种天然饵料对大西洋金黄水母(*Chrysaora quinquecirrha*)幼水母体存活和生长的影响
..... 李达,王文章,周强,王玮(89)

生态渔业专栏

- 生态净养对去除大口黑鲈土腥味与提升营养成分的效果 周聃,倪蒙,刘梅,邹松保,胥晴,顾志敏,原居林(96)
- 鱼菜共生系统中麦穗鱼肠道菌群研究 张冀野,王世兴,刘东姣,杜新科,牟晋华,申旭红(104)

综述

- 水产疫苗的细胞因子免疫佐剂研究及应用 王啸宇,蒋昕或,周勇,曾令兵,孔祥会(112)
- 鱼类细胞系研究现状 景宏丽,孔玉方,袁向芬,张旻,王娜,陈冬杰,吴绍强(120)

《水产学杂志》编辑委员会

EDITORIAL COMMITTEE FOR CHINESE JOURNAL OF FISHERIES

主任委员	Chairman:	金星	JIN Xing	陈化兰	CHEN Hualan
副主任委员	Vice-Chairman:	桂建芳	GUI Jianfang	郑先虎	ZHENG Xianhu
委员	Members:	戈贤平	GE Xianping	王玉梅	WANG Yumei
金显仕	JIN Xianshi	江世贵	JIANG Shigui	刘胜旺	LIU Shengwang
聂品	NIE Pin	危起伟	WEI Qiwei	邹桂伟	ZOU Guiwei
徐皓	XU Hao	徐跑	XU Pao	徐瑞永	XU Ruiyong
陈松林	CHEN Songlin	曾令兵	ZENG Lingbing	傅洪拓	FU Hongtuo
方辉	FANG Hui	聂国兴	NIE Guoxing	叶继丹	YE Jidan
刘家寿	LIU Jiashou	徐小静	XU Xiaojing	韩英	HAN Ying
陈生熬	CHEN Shengao	倪士峰	NI Shifeng	刘雅丹	LIU Yadan
谭青松	TAN Qingsong	马波	MA Bo	徐伟	XU Wei
王炳谦	WANG Bingqian	于洪贤	YU Hongxian	梁利群	LIANG Liquan
张晓峰	ZHANG Xiaofeng	刘红柏	LIU Hongbai	覃东立	QIN Dongli
卢彤岩	LU Tongyan	姜作发	JIANG Zuofa		
霍堂斌	HUO Tangbin				
主编	Editor-in-chief:	郑先虎	ZHENG Xianhu		
副主编	Associate Editors-in-Chief:	孙效文	SUN Xiaowen	王吉桥	WANG Jiqiao
编辑部主任	Chief of Editorial Office:	李福来	LI Fulai		
责任编辑	Responsible Editor:	耿波	GENG Bo		

SHUICHANXUE ZAZHI

水产学杂志

(双月刊, 1988年创刊)

第36卷 第3期 2023年6月

CHINESE JOURNAL OF FISHERIES

(Bimonthly, Started in 1988)

Vol. 36, No. 3, Jun. 2023

主管: 中国水产科学研究院
主办: 中国水产科学研究院
黑龙江水产研究所
编辑出版: 《水产学杂志》编辑部
电子信箱: zazhi2000@126.com
电话: 0451-84861626
地址: 哈尔滨市道里区河松街
232号
邮编: 150070
印刷单位: 黑龙江艺德印刷有限责
任公司
出版日期: 6月20日
中国标准连 ISSN 1005-3832
续出版物号: CN 23-1363/S
网 址: www.scxzz.ac.cn

Responsible: Chinese Academy of Fishery Sciences
Sponsor: Heilongjiang River Fisheries Research Institute,
Chinese Academy of Fishery Sciences
Editor and Publisher: Editorial Department of Chinese
Journal of Fisheries
E-mail: zazhi2000@126.com
Tel: 0451-84861626
Address: 232 Hesong Avenue, Daoli, Harbin, 150070,
China
Printed by: Heilongjiang Yide Plate & Print Co. Ltd.
Date of Publication: Jun. 20
Issue Number: ISSN 1005-3832
CN 23-1363/S
Website: www.scxzz.ac.cn

定价: 30.00元

公开发行



ISSN 1005-3832



9 771005 383238