

# 中国水产科学

## Zhongguo Shuichan Kexue

第 31 卷 第 12 期 (卷终) 2024 年 12 月

### 目 次

#### 研究论文

- 草鱼和赤眼鳟 *nanos2* 基因的克隆与表达特征分析 ..... 黄玲, 叶欢, 岳华梅, 侯彦岭, 屈紫玲, 阮瑞, 李创举 (1411)
- 紫贻贝热硬化过程中耐热相关生物学过程及通路的转录组分析 ..... 张万亮, 董震宇, 王昊, 魏炳琦, 林华建, 王伟峰, 郭宝英 (1422)
- 中华绒螯蟹 *Rheb* 编码序列的克隆及表达分析 ..... 田志环, 焦传珍 (1432)
- 低氧胁迫对绿鳍马面鲀血液生理生化、鳃组织结构和肝脏抗氧化能力的影响 ..... 刘志飞, 汪峰, 陈帅钰, 陈夏添, 贾玉东 (1441)
- 许氏平鲉对慢性高温胁迫响应的转录组学分析 ..... 谭杰, 张正, 刘长琳, 王亮, 肖文杰, 姜达 (1453)
- 秦岭细鳞鲑视觉器官早期发育组织学观察 ..... 张林, 郭星辰, 宋荣群, 王桢璐, 叶欢, 熊冬梅, 李志刚, 邵俭 (1464)
- 秦岭细鳞鲑仔鱼游泳能力及行为 ..... 杨宏灿, 刘鹏, 王艺舟, 李君轶, 周琼, 王桢璐, 邵俭 (1474)
- 不同产量水平下凡纳滨对虾小棚模式水质、颗粒相关细菌及周围细菌结构和功能差异 ..... 黄勇, 王宝杰, 刘梅, 任子文, 蒋克勇, 仲晨, 徐科凤, 高焱, 王雷 (1484)
- 池塘循环水养殖系统净化单元对水体浮游植物的影响 ..... 郑颖强, 代梨梨, 张辉, 彭亮, 陶玲, 李谷, 柴毅, 廖咏玲 (1497)
- 综合鱼体、耳石形态与耳石微化学的硇洲族和闽-粤东族大黄鱼的种群识别 ..... 阳敏, 秦蛟, 古龙, 李若静, 赵娜, 张博 (1511)
- 春季南沙西南部陆架区主要渔业生物营养结构 ..... 邱星宇, 刘庆霞, 陈作志, 蔡研聪, 戴守辉, 黄洪辉 (1524)

# Journal of Fishery Sciences of China

Vol. 31 No. 12 Dec. 2024

## Contents

- Cloning and expression characterization analysis of *nanos2* gene in *Ctenopharyngodon idella* and *Squaliobarbus curriculus* ..... HUANG Ling, YE Huan, YUE Huamei, HOU Yanling, QU Ziling, RUAN Rui, LI Chuangju (1421)
- Transcriptome analysis of heat tolerance-related biological processes and pathways during heat-hardening in *Mytilus Galloprovincialis* ..... ZHANG Wanliang, DONG Zhenyu, WANG Hao, WEI Bingqi, LIN Huajian, WANG Weifeng, GUO Baoying (1431)
- Cloning and expression analysis of sequence encoding Rheb in *Eriocheir sinensis* ..... TIAN Zhihuan, JIAO Chuanzhen (1440)
- Effects of hypoxia stress on hematological physiology and biochemistry, gill histiology and hepatic antioxidant capacity of black scraper *Thamnaconus septentrionalis* ..... LIU Zhifei, WANG Feng, CHEN Shuaiyu, CHEN Xiatian, JIA Yudong (1452)
- Transcriptomic responses to chronic heat stress in black rockfish (*Sebastes schlegelii*) ..... TAN Jie, ZHANG Zheng, LIU Changlin, WANG Liang, XIAO Wenjie, JIANG Da (1463)
- Histological observation of the visual organ of *Brachymystax tsinlingensis* Li 1966 at the early developmental stage ..... ZHANG Lin, GUO Xingchen, SONG Rongqun, WANG Zhenlu, YE Huan, XIONG Dongmei, LI Zhigang, SHAO Jian (1473)
- Swimming ability and behavior of *Brachymystax tsinlingensis* Li, 1966 larvae ..... YANG Hongcan, LIU Peng, WANG Yizhou, LI Junyi, ZHOU Qiong, WANG Zhenlu, SHAO Jian (1483)
- Differences in water quality, bacterial structure and function of particle-associated bacteria and surrounding bacteria in small greenhouse farms of *Litopenaeus vannamei* under different yield levels ..... HUANG Yong, WANG Baojie, LIU Mei, REN Ziwen, JIANG Keyong, ZHONG Chen, XU Kefeng, GAO Yan, WANG Lei (1496)
- Effects of purification units on phytoplankton in water column in recirculating pond aquaculture systems ..... ZHENG Yingqiang, DAI Lili, ZHANG Hui, PENG Liang, TAO Ling, LI Gu, CHAI Yi, LIAO Yongling (1510)
- Stock discrimination of *Larimichthys crocea* from Naozhou and Min-yuedong groups based on fish morphology, otolith morphology and chemistry ..... YANG Min, QIN Jiao, GU Long, LI Ruojing, ZHAO Na, ZHANG Bo (1523)
- The trophic structure of main fishery organisms in the southwestern continental shelf of the Nansha Islands in spring ..... QIU Xingyu, LIU Qingxia, CHEN Zuozhi, CAI Yancong, DAI Shouhui, HUANG Honghui (1538)