

**中国水产科学**  
**Zhongguo Shuichan Kexue**

第 32 卷 第 3 期 2025 年 3 月

**目 次**

**研究论文**

- 基因编辑半滑舌鳎的肠道菌群与环境安全性分析 ..... 吴茵琪, 陈张帆, 李鹏飞, 崔忠凯, 丁兰清, 成方舟, 闫煦, 周泽斌, 陈松林 (277)
- 鳙感染嗜水气单胞菌后 *pIgR* 基因的免疫响应及组织病理变化 ..... 夏虎, 丁成, 刘良国, 杨心月, 卜建超, 陈福艳, 向光清, 黄洁珍, 杨品红 (286)
- 马口鱼卵巢周年发育与规模化人工繁殖 ..... 邓翔, 邹聪, 沈凡, 乔浩峰, 陈玉佩, 胡晨昊, 别汉晴, 樊启学, 沈志刚 (299)
- 马氏珠母贝春季与秋季植核育珠效果差异及与环境因子的相关性 ..... 廖永山, 伍旭辉, 陶川贵, 王亚冰, 邓岳文, 王庆恒 (312)
- 管海马和海水青鳉昼夜行为节律的分析与比较 ..... 李加伟, 林苋宏, 徐永健 (321)

**渔业资源与环境专栏**

- 鳙肠道菌株 BJ-1 体外调控休眠铜绿微囊藻复苏研究 ..... 邹万生, 莫平, 石彭灵, 王智, 罗玉双 (333)
- 2013—2022 年海州湾及其邻近海域鱼类群落物种共存格局的年际变化 ..... 刘伟辰, 薛莹, 张崇良, 纪毓鹏, 任一平, 徐宾铎 (349)
- 基于分子标记技术的中国对虾放流效果评估 ..... 邱靖媛, 吕丁, 胡玉龙, 王伟继, 吕官正, 单秀娟 (362)
- 水霉病感染与健康状态下巨须裂腹鱼肠道微生物多样性差异 ..... 汪昱言, 刘怡萱, 王万良, 曹鹏熙 (372)
- 禁捕初期鄱阳湖刀鲚出入湖时序特征及环境影响因子 ..... 杨彦平, 王生, 轩中亚, 马凤娇, 彭乐根, 文嗣鑫, 沈迎东, 刘凯 (387)

**深远海养殖专栏**

- 波流联合作用下升降式养殖网箱水动力特性 ..... 李潇冉, 崔勇, 关长涛, 王刚, 吴锦涛, 郭一诺 (396)
- 基于 YOLO 的养殖鱼群全向声呐实时监测方法研究与应用 ..... 孙鹏麒, 胡家祯, 黄小华, 孙佳龙, 李根, 陶启友, 袁太平, 庞国良, 胡昱 (409)

# Journal of Fishery Sciences of China

Vol. 32 No. 3 Mar. 2025

## Contents

Analysis of gut microbiota and environmental safety of gene-edited half-smooth tongue sole ( <i>Cynoglossus semilaevis</i> )	WU Yinqi, CHEN Zhangfan, LI Pengfei, CUI Zhongkai, DING Lanqing, CHENG Fangzhou, YAN Xu, CHEN Zebin, CHEN Songlin	(285)
Immune responses of <i>pIgR</i> gene and histopathological changes in <i>Aristichthys nobilis</i> after being infected with <i>Aeromonas hydrophila</i>	Xia Hu, Ding Cheng, Liu Liangguo, YANG Xinyue, BU Jianchao, Chen Fuyan, XIANG Guangqing, HUANG Jiezen, YANG Pinhong	(298)
Annual ovary development and large-scale artificial reproduction of hooksnout carp, <i>Opsariichthys bidens</i>	DENG Xiang, ZOU Cong, SHEN Fan, QIAO Haofeng, CHEN Yupei, HU Chenhao, BIE Hanqing, FAN Qixue, SHEN Zhigang	(311)
Differences in oyster pearl, <i>Pinctada fucata martensii</i> , cultivation efficiency in spring and autumn nucleations and their correlation with environmental factors	LIAO Yongshan, WU Xuhui, TAO Chuangui, WANG Yabing, DENG Yuewen, WANG Qingheng	(320)
Analysis and comparison of circadian behavioral rhythms between <i>Hippocampus kuda</i> and <i>Oryzias melastigma</i>	LI Jiawei, LIN Penghong, XU Yongjian	(332)
<i>In vitro</i> regulation of intestinal bacteria BJ-1 from <i>Aristichthys nobilis</i> in recruitment of dormant <i>Microcystis aeruginosa</i> cells in pond ecosystem	ZOU Wansheng, MO Ping, SHI Pengling, WANG Zhi, LUO Yushuang	(347)
Interannual changes in species co-occurrence patterns of fish communities in Haizhou Bay and its adjacent waters from 2013 to 2022	LIU Weichen, XUE Ying, ZHANG Chongliang, JI Yupeng, REN Yiping, XU Binduo	(361)
Performance evaluation of <i>Fenneropenaeus chinensis</i> release and enhancement based on molecular marker technology	QIU Jingyuan, LYU Ding, HU Yulong, WANG Weiji, LYU Guanzheng, SHAN Xiujuan	(370)
Differences in gut microbial diversity between <i>Schizothorax macropogon</i> with saprolegniasis and good health	WANG Yuyan, Liu Yixuan, WANG Wanliang, CAO Pengxi	(386)
Temporal characteristics and environmental impact factors of <i>Coilia nasus</i> migration into and out of the Poyang Lake during the early period of the fishing ban	YANG Yanping, WANG Sheng, XUAN Zhongya, MA Fengjiao, PENG Legen, WEN Sixin, SHEN Yingdong, LIU Kai	(395)
Hydrodynamic characteristics of a submersible cage in waves and currents	LI Xiaoran, CUI Yong, GUAN Changtao, WANG Gang, WU Jintao, GUO Yinuo	(408)
Research and application of real-time monitoring method for cultured fish based on YOLO	SUN Pengqi, HU Jiazen, HUANG Xiaohua, SUN Jialong, LI Gen, TAO Qiyou, YUAN Taiping, PANG Guoliang, HU Yu	(419)