

ISSN 1003-1111  
CN 21-1110/S

# 水产科学

FISHERIES SCIENCE

第42卷 第1期 Vol. 42 No. 1

2023年1月 Jan. 2023

辽宁省水产学会  
Liaoning Fisheries Society 主办

 科学出版社  
Science Press 出版

# 水产科学

第 42 卷 第 1 期 2023 年 1 月

## 目 次

### · 研究与应用 ·

- 基于高通量测序的长江口中华绒螯蟹雌蟹食性分析 ..... 徐静静, 冯广朋, 张涛, 耿智, 杨刚, 宋超, 李春波(1)
- 全氟辛烷磺酸对斑马鱼胚胎的急性毒性与致畸效应 ..... 刘笑楠, 吴昊, 郑丽利, 许佳, 高雪忠, 高斐斐, 江敏(11)
- 荔波樟江野生斑鳜线粒体 Cyt b 基因序列多态性分析 ..... 麻智芳, 余科, 安苗, 黄胜, 潘秋芝, 李珊, 何孝宽(21)
- 宽口裂腹鱼尾鳍细胞系的建立及其应用 ..... 代金彩, 李丽, 李学涛, 魏杰, 聂竹兰(30)
- 蝇蛆蛋白混合物对美洲鳗鲡非特异性免疫功能的影响 ..... 陈杰, 陈子廷, 赵甜, 王方海, 李广宏(39)
- 异齿裂腹鱼 Clock 基因 cDNA 的克隆与组织表达特征 ..... 周建设, 扎西拉姆, 王万良, 孙帅杰, 张驰(48)
- 泥蚶动态能量收支模型参数的测定 ..... 姜波, 何京, 郑侠飞, 何琳, 林志华(57)
- 2 种抗雌激素药物对雄性中华鳖脂代谢的影响 ..... 汪桂宇, 王璐明, 巫旗生, 岑双双, 马晓, 李学军(65)
- 大连海域 5 种经济鱼类的生长、死亡及资源合理利用研究 ..... 刘修泽, 吉光, 王彬, 段妍, 王小林, 王爱勇, 柴雨, 孙明, 郭栋, 董婧, 王源元, 田杨(73)
- 配合饲料和冰鲜鱼对大口黑鲈生长和品质的影响 ..... 邵俊杰, 钟立强, 朱昱璇, 张世勇, 万金娟, 陈风蔚, 张美琴, 陈校辉, 刘国兴, 王明华(81)
- 温度对马口鱼幼鱼耗氧率、窒息点及抗氧化能力的影响 ..... 张凯, 王伟瑜, 赵丽悦, 熊洛梅, 梅叶涵, 黄可欣, 刘芳玲, 于瑾, 郑善坚(89)
- 蒙脱石对仿刺参幼生长、主要消化酶和免疫酶活性的影响 ..... 李君华, 刘佳亮, 李静, 孙路平, 刘石林, 王玉本(96)
- 棘胸蛙出血性败血症的病原菌分离鉴定与病理学研究 ..... 任思宇, 吴春艳, 汪开毓, 王雯慧, 刘震坤, 杨延辉(102)
- 春季升温控制对海蜇横裂生殖的影响 ..... 段妍, 孙明, 陈福迪, 王一彤(113)
- 镉胁迫对黄鳝醛酮还原酶基因表达的影响 ..... 孔丹, 李伟(119)
- 野生和养殖丁鱥肠道微生物菌群的比较分析 ..... 钱逸, 许沁宇, 钱龙, 艾涛, 向伟, 胡伯林, 王军, 王成辉(128)
- 饥饿对日本囊对虾免疫及 ATP 酶活性的影响 ..... 赵思哲, 李婉莹, 李永闻, 于淼淼, 赖晓芳, 王攀攀, 于飞, 阎斌伦, 吴君, 何孝锋, 高焕(136)
- 不同循环饥饿投喂模式对许氏平鲉生长和体成分的影响 ..... 刘凯凯, 丁刚, 李乐, 宋静静, 迟雯丹, 于道德(142)

### · 综述与专论 ·

- 海参皂苷分离纯化、结构分析及活性的研究进展 ..... 刘桂英, 刘煜珺, 张瑜洋, 吴金浩, 宋伦, 周遵春, 熊爽, 王政(147)
- 岩藻聚糖硫酸酯抗炎、抗氧化及其交互作用研究进展 ..... 张琳依, 夏青, 刘岩, 贾哲宇, 柯悦, 程晶, 任丹丹, 何云海, 汪秋宽(157)
- 糖原在双壳贝类中的储存、转运和利用研究进展 ..... 梅丽敏, 周成旭(167)

# Fisheries Science

## Vol. 42 No. 1 Jan. 2023

### Contents

#### • Research and Application •

- Diet Composition and Feeding Habits of Female Chinese Mitten Crab *Eriocheir sinensis* in the Yangtze River Estuary Based on High-Throughput Sequencing ..... XU Jingjing, FENG Guangpeng, ZHANG Tao, GENG Zhi, YANG Gang, SONG Chao, LI Chunbo (1)
- Acute Toxicity and Teratogenic Effects of Perfluorooctane Sulfonic Acid on Zebrafish *Danio rerio* Embryos ..... LIU Xiaonan, WU Hao, ZHENG Lili, XU Jia, GAO Xuezong, GAO Feifei, JIANG Min (11)
- Polymorphism Analysis of Mitochondria Cyt b Gene Sequences in Wild Population of LiBo Spot Mandarin Fish *Siniperca scherzeri* ..... MA Zhifang, YU Ke, AN Miao, HUANG Sheng, PAN Qizhi, LI Shan, HE Xiaokuan (21)
- Establishment of Cell Line of *Schizothorax eurystomus* Caudal Fin and Effect of Salinity and Alkalinity on Its Proliferation ..... DAI Jincai, LI Li, LI Xuetao, WEI Jie, NIE Zhulan (30)
- Effects of Maggot Protein Mixture on Non-Specific Immune Function of American Eel *Anguilla rostrata* ..... CHEN Jie, CHEN Ziting, ZHAO Tian, WANG Fanghai, LI Guanghong (39)
- Cloning and Expression Profile of Clock Gene cDNA in *Schizothorax o'connori* ..... ZHOU Jianshe, TASHI Lhamo, WANG Wanliang, SUN Shuaijie, ZHANG Chi (48)
- Estimation of Dynamic Energy Budget (DEB) Model Parameters for Mud Cockle *Tegillarca granosa* ..... JIANG Bo, HE Jing, ZHENG Xiafei, HE Lin, LIN Zhihua (57)
- Effects of Letrozole and Fulvestrant on Lipid Metabolism in Male Chinese Soft-Shelled Turtle *Pelodiscus sinensis* ..... WANG Guiyu, WANG Luming, WU Qisheng, CEN Shuangshuang, MA Xiao, LI Xuejun (65)
- Growth, Mortality and Rational Utilization of 5 Economic Fish Species in Coastal Dalian ..... LIU Xiuze, JI Guang, WANG Bin, DUAN Yan, WANG Xiaolin, WANG Aiyong, CHAI Yu, SUN Ming, GUO Dong, DONG Jing, WANG Yuanyuan, TIAN Yang (73)
- Effects of Formulated Feed and Chilled Trash Fish on Growth Performance and Meat Quality of Largemouth Bass *Micropterus salmoides* ..... SHAO Junjie, ZHONG Liqiang, ZHU Yuxuan, ZHANG Shiyong, WAN Jinjuan, CHEN Fengwei, ZHANG Meiqin, CHEN Xiaohui, LIU Guoxing, WANG Minghua (81)
- Effects of Temperature on Oxygen Consumption Rate, Suffocation Threshold, and Antioxidant Capacity of Juvenile Chinese Hooksnot Carp *Opsariichthys bidens* ..... ZHANG Kai, WANG Weiyu, ZHAO Liyue, XIONG Luomei, MEI Yehan, HUANG Kexin, LIU Fangling, YU Jin, ZHENG Shanjian (89)
- Effects of Dietary Montmorillonite on Growth Performance, Digestive Enzyme Activities, and Immunity of Juvenile Sea Cucumber *Apostichopus japonicus* ..... LI Junhua, LIU Jialiang, LI Jing, SUN Luping, LIU Shilin, WANG Yuben (96)
- Isolation and Identification of Pathogenic Bacterium and Pathology of Haemorrhagic Septicaemia of Domestic Frog *Quasipaa spinosa* ..... REN Siyu, WU Chunyan, WANG Kaiyu, WANG Wenhuai, LIU Zhenkun, YANG Yanhui (102)
- Effect of Different Warming Regimes in Spring on Strobilation and Ephyrae Number of Jellyfish *Rhopilema esculentum* ..... DUAN Yan, SUN Ming, CHEN Fudi, WANG Yitong (113)
- Analysis of Expression of Aldo-Keto Reductase Gene in Swamp Eel *Monopterus albus* Exposed to Cadmium ..... KONG Dan, LI Wei (119)
- Comparative Analysis on Intestinal Microflora of Wild and Cultured Tench *Tinca tinca* ..... QIAN Yi, XU Qinyu, QIAN Long, AI Tao, XIANG Wei, HU Bolin, WANG Jun, WANG Chenghui (128)
- Effects of Starvation Stress on Immunity and ATPase Activity of Kuruma Prawn *Marsupenaeus japonicus* ..... ZHAO Sizhe, LI Wanying, LI Yongchuang, YU Miaomiao, LAI Xiaofang, WANG Panpan, YU Fei, YAN Binlun, WU Jun, HE Xiaofeng, GAO Huan (137)
- Effect of Different Cyclic Starvation and Refeeding Regimes on Growth and Body Compositions in Black Rockfish *Sebastodes schlegelii* ..... LIU Kaikai, DING Gang, LI Le, SONG Jingjing, CHI Wendan, YU Daode (142)
- #### • Overview and Specific Topic •
- Research Progress on Separation, Purification, Structure Analysis and Biological Activity of Saponins in Sea Cucumber: a Review ..... LIU Guiying, LIU Yujun, ZHANG Yuyang, WU Jinhao, SONG Lun, ZHOU Zunchun, XIONG Shuang, WANG Zheng (147)
- Research Progress on Anti-Inflammatory, Antioxidant Activities of Fucoidan and Their Interaction ..... ZHANG Linyi, XIA Qing, LIU Yan, JIA Zheyu, KE Yue, CHENG Jing, REN Dandan, HE Yunhai, WANG Qiukuan (157)
- A Review: Research Progress on Storage, Transport and Utilization of Glycogen in Bivalves ..... MEI Limin, ZHOU Chengxu (167)