

# 水 产 科 学

第 30 卷第 5 期 2011 年 5 月

## 目 次

### • 研究与应用 •

- 饲料脂肪水平对凡纳滨对虾生长、肌肉和肝胰腺脂肪酸组成的影响 ..... 黄凯, 吴宏玉, 朱定贵, 麻艳群(249)  
半滑舌鳎胚胎发育过程中孵化腺细胞动态特征 ..... 李凤超, 康现江, 刘美, 穆淑梅, 郭明申(256)  
干燥和模拟酸雨胁迫对条斑紫菜光合作用的影响 ..... 李信书, 徐军田, 何培民(260)  
两种芽孢杆菌体外体内拮抗气单胞菌的试验 ..... 孙龙生, 张玮, 吴玉波, 王加美, 李晓刚, 张艳云(265)  
中街山列岛保护区底栖海藻分布与资源特征 ..... 陆艳用, 马玉心, 崔大练, 王俊, 秦景(269)  
DGGE 分析不同盐度仿刺参养殖环境中菌群多样性 ..... 关晓燕, 周莲春, 姜冰, 董颖, 汪笑宇, 姜北, 杨爱霞, 陈仲, 王摆, 孙大鹏(276)  
草鱼 Wap65 基因的克隆和鉴定 ..... 赵风云, 吴初新, 朱玉娇, 胡成钰(281)  
鲍鱼生态化苗种生产技术的研究 ..... 顾勇杰, 严正凜(287)  
亲缘关系对克氏原螯虾仔虾种内斗争的影响 ..... 熊青海, 陈婷, 李佳佳, 唐建清, 黄成(291)  
浸泡对浮性饲料粗蛋白含量及水质的影响 ..... 杨世勇, 黄代伟, 杜宗君, 范林君, 汪开毓, 王用黎(295)  
盐藻超氧化物歧化酶分子类型鉴定 ..... 郭金耀, 杨晓玲(298)

### • 综述与专论 •

- 饲料脂质对养殖鱼类品质的影响 ..... 邓士秋, 段青源, 申屠基康(301)  
水产动物溶菌酶研究的最新进展 ..... 徐永平, 汪婷婷, 孙永欣, 刘文嘉, 尤建嵩, 金礼吉(307)

### • 信 息 •

“2011 辽宁省水产学会学术年会”征文通知(286), 2011 水产科技论坛(290)

### • 广 告 •

大连汇新海洋科技发展有限公司(封二), 盘锦光合水产有限公司(封三), 辽宁省海洋渔业环境监测总站  
(封四)

# Fisheries Science

## Vol. 30 No. 5 May 2011

### Contents

#### • Research and Application •

Effects of Dietary Lipid Levels on Growth and Fatty Acid Composition in Hepatopancreas and Muscle of Pacific White Leg Shrimp <i>Litopenaeus vannamei</i> .....	..... HUANG Kai, WU Hong-yu, ZHU Ding-gui, MA Yan-qun(249)
The Characteristics of Hatching Gland Cells During Embryonic Development in Half-smooth Sole <i>Cynoglossus semilaevis</i> .....	..... LI Feng-chao, KANG Xian-jiang, LIU Mei, MU Shu-mei, GUO Ming-shen(256)
Photosynthesis Characteristics in Laver <i>Porphyra yezoensis</i> Responses to Desiccation and Simulated Acid Rain .....	..... LI Xin-shu, XU Jun-tian, HE Pei-min(260)
Inhibition of <i>Aeromonas</i> Growth by Two <i>Bacillus</i> Strains <i>In Vitro</i> and <i>In Vivo</i> .....	..... SUN Long-sheng, ZHANG Wei, WU Yu-bo, WANG Jia-mei, LI Xiao-gang, ZHANG Yan-yun(265)
The Distribution and Resources of Benthic Algae in the Protected Zhongjieshan Islands Area .....	..... LU Yan-yong, MA Yu-xin, CUI Da-lian, WANG Jun, QIN Jing(269)
Environmental Bacterial Diversity in Sea Cucumber ( <i>Apostichopus japonicus</i> ) Culture Under Different Salinities Based on DGGE Fingerprint .....	..... GUAN Xiao-yan, ZHOU Zun-chun, JIANA Bing, DONG Ying, WANG Xiao-yu, JIANG Bei, YANG Ai-fu, CHEN Zhong, WANG Bai, SUN Da-peng(276)
Molecular Cloning and Identification of the Wap65 Gene from Grass Carp ( <i>Ctenopharyngodon idella</i> ) .....	..... ZHAO Feng-yun, WU Chu-xin, ZHU Yu-jiao, HU Cheng-yu(281)
Ecological Seedling Techniques in Abalone .....	..... GU Yong-jie, YAN Zheng-lin(287)
Effects of Relative Relationship on Growth and Survival of Juvenile Red Swamp Crayfish, <i>Procambarus clarkii</i> , Reared in a Laboratory .....	..... XIONG Qing-hai, CHEN Ting, LI Jia-jia, TANG Jian-qing, HUANG Cheng(291)
Effects of Soaking Treatment on Crude Protein Level in Floating Feed and Related Water Quality .....	..... YANG Shi-yong, HUANG Dai-wei, DU Zong-jun, FAN Lin-jun, WANG Kai-yu, WANG Yong-li(295)
Identification of Molecular Types of Superoxide Dismutase(SOD)from Alga <i>Dunaliella salina</i> .....	..... GUO Jin-yao, YANG Xiao-ling(298)

#### • Overview and Specific Topic •

Effect of Dietary Lipids on Flesh Quality in Farmed Fish .....	..... DENG Shi-qi, DUAN Qing-yuan, SHENTU Ji-kang(301)
Current Research on Function and Application of Aquatic Animal Lysozyme .....	..... XU Yong-ping, WANG Ting-ting, SUN Yong-xin, LIU Wen-jia, YOU Jian-song, JIN Li-ji(307)

**ISSN 1003-1111**   **Edited by Editorial Board of Journal of Fisheries Science**  
**CN 21-1110/S**

Liaoning Ocean and Fisheries Science Research Institute, 50 Heishijiao Street, Dalian, P. R. China,  
Post code: 116023  
Tel: 86-411-84679512   Chief Editor: TAN Ke-fei