

MARINE BIOTECHNOLOGY

THE OFFICIAL JOURNAL OF

EUROPEAN SOCIETY FOR MARINE BIOTECHNOLOGY
JAPANESE SOCIETY OF MARINE BIOTECHNOLOGY

Volume 13, Number 5

2011

REVIEW ARTICLE

- The Importance of Chitin in the Marine Environment 823
Claudiana P. Souza, Bianca C. Almeida, Rita R. Colwell, Irma N. G. Rivera

SHORT COMMUNICATIONS

- Do Inactivated Microbial Preparations Improve Life History Traits of the Copepod *Acartia tonsa*? 831
Guillaume Drillet, Tahina Rabarimanantsoa, Stéphane Frouël, Jacob S. Lamson, Anette M. Christensen, Sandra Kim-Tiam, Benni W. Hansen
- Production of Cold-Adapted Amylase by Marine Bacterium *Wangia* sp. C52: Optimization, Modeling, and Partial Characterization 837
Jianguo Liu, Zhiqiang Zhang, Zhiqiang Liu, Hu Zhu, Hongyue Dang, Jianren Lu, Zhanfeng Cui

ORIGINAL ARTICLES

- Molecular Cloning, Modeling, and Site-Directed Mutagenesis of Type III Polyketide Synthase from *Sargassum binderi* (Phaeophyta) 845
Hariyanti Baharum, Hiroyuki Morita, Akifumi Tomitsuka, Fong-Chin Lee, Kim-Yong Ng, Raha Abdul Rahim, Ikuro Abe, Chai-Ling Ho
- Diversity of Coding Sequences and Gene Structures of the Antifungal Peptide Mytimycin (MytM) from the Mediterranean Mussel, *Mytilus galloprovincialis* 857
Mohrudee Sonthi, Mylène Toubiana, Alberto Pallavicini, Paola Venier, Philippe Roch
- Cellular Localization of Debromohymenialdisine and Hymenialdisine in the Marine Sponge *Axinella* sp. Using a Newly Developed Cell Purification Protocol 868
Yue-Fan Song, Yi Qu, Xu-Peng Cao, Wei Zhang
- Anti-protease and Immunomodulatory Activities of Bacteria Associated with Caribbean Sponges 883
Paula Tabares, Sheila M. Pimentel-Elardo, Tanja Schirmeister, Thomas Hüinig, Ute Hentschel
- Characterization of Carrageenan Extracted from *Hypnea bryoides* in Oman 893
Ahmed Ali Al-Alawi, Insaaf Mohammed Al-Marhubi, Mohammed Said Moosa Al-Belushi, Bassam Soussi
- Metagenomic Analysis of 0.2- μ m-Passable Microorganisms in Deep-Sea Hydrothermal Fluid 900
Ryosuke Nakai, Takashi Abe, Haruko Takeyama, Takeshi Naganuma



Cover legend: Crewman Shayne Strand brings a Pacific halibut aboard the commercial longliner Bold Pursuit, fishing the waters of southeast Alaska, USA. Because halibut are dressed at sea and landed without gonads, molecular techniques are being developed to aid managers in determining sex ratios in the landed catch.

Photo: The image illustrates the article "Genetic Sex Identification and the Potential Evolution of Sex Determination in Pacific Halibut (*Hippoglossus stenolepis*)" by Galindo et al., published on page 1027 of this issue. Photographed by Dan Rafka, image property of International Pacific Halibut Commission.

(contents continued on next page)

MARINE BIOTECHNOLOGY

- Assessment of the Roles of Copepod *Apocyclops royi* and Bivalve Mollusk *Meretrix lusoria* in White Spot Syndrome Virus Transmission 909
Yun-Shiang Chang, Tsan-Chi Chen, Wang-Jing Liu, Jiang-Shiou Hwang, Guang-Hsiung Kou, Chu-Fang Lo
- An Autolytic Process for Recovery of Antioxidant Activity Rich Carotenoprotein from Shrimp Heads 918
R. Sowmya, K. Rathinaraj, N. M. Sachindra
- Photoautotrophic Production of Lipids by Some *Chlorella* Strains 928
Sarote Sirisansaneeyakul, Somruethai Singhasuwan, Wanna Choorit, Natapas Phoopat, Jose Luis Garcia, Yusuf Chisti
- Evaluation of Global Gene Expression During Cold Shock in the Human Pathogen *Vibrio vulnificus* 942
Raphael R. Wood, Cova R. Arias
- Proteomic Identification of Novel Proteins from the Calcifying Shell Matrix of the Manila Clam *Venerupis philippinarum* 955
Benjamin Marie, Nolwenn Trinkler, Isabelle Zanella-Cleon, Nathalie Guichard, Michel Becchi, Christine Paillard, Frédéric Marin
- Surface Display of *Aeromonas hydrophila* GAPDH in Attenuated *Vibrio anguillarum* to Develop a Novel Multivalent Vector Vaccine 963
Yan Zhao, Qin Liu, Xiuhua Wang, Lingyun Zhou, Qiyao Wang, Yuanxing Zhang
- A Functional Study of Transforming Growth Factor-Beta from the Gonad of Pacific Oyster *Crassostrea gigas* 971
Charlotte Corporeau, Agnès Groisillier, Alexandra Jeudy, Tristan Barbeyron, Elodie Fleury, Caroline Fabioux, Mirjam Czizek, Arnaud Huvet
- A New Method to Extract Matrix Proteins Directly from the Secretion of the Mollusk Mantle and the Role of These Proteins in Shell Biomineralization 981
Xiaojun Liu, Chang Liu, Lei Chen, Juan Sun, Yujuan Zhou, Qi Li, Guilan Zheng, Guiyou Zhang, Hongzhong Wang, Liping Xie, Rongqing Zhang
- A New Coral Carbonic Anhydrase in *Stylophora pistillata* 992
Anthony Bertucci, Sylvie Tambutti, Claudiu T. Supuran, Denis Allemand, Didier Zoccola
- Characterization of a Non-fibrillar-Related Collagen in the Mollusc *Haliotis tuberculata* and its Biological Activity on Human Dermal Fibroblasts 1003
Christophe Fleury, Antoine Serpentini, Magdalini Kyriotou, Emmanuelle Renard, Philippe Galéra, Jean-Marc Lebel

(contents continued on next page)

MARINE BIOTECHNOLOGY

- Induced Gynogenesis in Grass Carp (*Ctenopharyngodon idellus*)
Using Irradiated Sperm of Allotetraploid Hybrids 1017
*Hong Zhang, Shaofun Liu, Chun Zhang, Min Tao, LiangYue Peng, CuiPing You,
Jun Xiao, Yi Zhou, Gongjian Zhou, KaiKun Luo, Yun Liu*
- Genetic Sex Identification and the Potential Evolution of Sex Determination
in Pacific Halibut (*Hippoglossus stenolepis*) 1027
Heather M. Galindo, Timothy Loher, Lorenz Hauser
- Transient Gene Expression System Established in *Porphyra yezoensis*
Is Widely Applicable in Bangiophyceae Algae 1038
Ryo Hirata, Megumu Takahashi, Naotsune Saga, Koji Mikami
- Structural Characterization of Extracellular Polysaccharides Produced
by the Marine Fungus *Epicoccum nigrum* JY-40
and Their Antioxidant Activities 1048
*Hai-Hong Sun, Wen-Jun Mao, Jie-Ying Jiao, Jia-Chao Xu, Hong-Yan Li, Yin Chen,
Xiao-Hui Qi, Yan-Li Chen, Jian Xu, Chun-Qi Zhao, Yu-Jiao Hou, Yu-Pin Yang*

Abstracted/Indexed in Academic OneFile, AGRICOLA, ASFA, Biological Abstracts, BIOSIS, Biotechnology Citation Index, CAB Abstracts, CAB International, Chemical Abstracts Service (CAS), CSA, Current Abstracts, Current Contents/ Agriculture, Biology & Environmental Sciences, EI-Compendex, Elsevier Biobase, EMBASE, EMBiology, Food Science and Technology Abstracts, Gale, Geobase, Global Health, Google Scholar, Health Reference Center Academic, IBIDS, Journal Citation Reports/ Science Edition, OCLC, ProQuest, PubMed/Medline, Science Citation Index, Science Citation Index Expanded (SciSearch), SCOPUS, Summon by Serial Solutions, VINITI - Russian Academy of Science, Zoological Record.

Instructions for Authors: Instructions for authors for Marine Biotechnology are available on the internet. Go to: www.springer.com/10126 and then click on **Instructions for Authors.**