

## Accepted Manuscript

Underwater image quality enhancement of sea cucumbers based on improved histogram equalization and wavelet transform

Xi Qiao, Jianhua Bao, Hang Zhang, Lihua Zeng, Daoliang Li

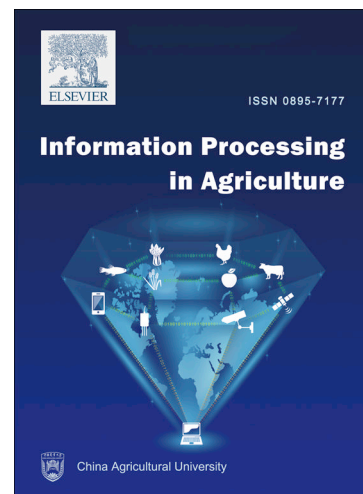
PII: S2214-3173(17)30069-0  
DOI: <http://dx.doi.org/10.1016/j.inpa.2017.06.001>  
Reference: INPA 89

To appear in: *Information Processing in Agriculture*

Received Date: 5 May 2017  
Revised Date: 19 May 2017  
Accepted Date: 6 June 2017

Please cite this article as: X. Qiao, J. Bao, H. Zhang, L. Zeng, D. Li, Underwater image quality enhancement of sea cucumbers based on improved histogram equalization and wavelet transform, *Information Processing in Agriculture* (2017), doi: <http://dx.doi.org/10.1016/j.inpa.2017.06.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**Underwater image quality enhancement of sea cucumbers based on improved histogram  
equalization and wavelet transform**

Xi Qiao<sup>1,2</sup>, Jianhua Bao<sup>1,2</sup>, Hang Zhang<sup>1,2,3</sup>, Lihua Zeng<sup>1,2,4</sup>, Daoliang Li<sup>1,2\*</sup>

<sup>1</sup> *Key Laboratory of Agricultural Information Acquisition Technology, Ministry of Agriculture, China*

*Agricultural University, Beijing, P.R. China*

<sup>2</sup> *College of Information and Electrical Engineering, China Agricultural University, Beijing, P.R.*

*China*

<sup>3</sup> *College of Computer and Information Engineering, Tianjin Agricultural University, Tianjin, P.R.*

*China*

<sup>4</sup> *College of Mathematics and Computer Science, Hebei Agricultural University, Baoding, P.R. China*

\*Corresponding author. Tel.: +86-10-62737679 Fax: +86-10-62737741

E-mail address: dliangl@cau.edu.cn

Postal address: P. O. Box 121, China Agricultural University, 17 Tsinghua East Road, Beijing 100083,

PR China.

Xi Qiao, Email: qiao-xi@qq.com

Jianhua Bao, Email: bjhxz@126.com

Hang zhang, Email: zhanghrz@126.com

Lihua Zeng, Email: zenglh@cau.edu.cn

**Abstract:** Sea cucumbers usually live in an environment where lighting and visibility are generally not controllable, which cause the underwater image of sea cucumbers to be distorted, blurred, and severely attenuated. Therefore, the valuable information from such an image cannot be fully extracted for further processing. To solve the problems mentioned above and improve the

Download English Version:

<https://daneshyari.com/en/article/8875376>

Download Persian Version:

<https://daneshyari.com/article/8875376>

[Daneshyari.com](https://daneshyari.com)