



Development and characterization of polymorphic microsatellite loci in the sea cucumber *Holothuria leucospilota*

G. Dai^{1,2}, Z.B. Li^{1,2}, J.B. Shangguan^{1,2}, Y.F. Ning^{1,2}, H.W. Deng^{1,2}, Y. Yuan^{1,2}, Y.S. Huang^{1,2}, H. Yang^{1,2} and J. Lu^{1,2}

¹Fisheries College, Jimei University, Xiamen, China

²Fujian Provincial Key Laboratory of Marine Fishery Resources and Eco-Environment, Xiamen, China

Corresponding author: Z.B. Li
E-mail: lizhongbao@jmu.edu.cn

Genet. Mol. Res. 14 (1): 538-541 (2015)

Received March 8, 2014

Accepted October 1, 2014

Published January 26, 2015

DOI <http://dx.doi.org/10.4238/2015.January.26.8>

ABSTRACT. *Holothuria leucospilota* is a tropical holothurian species that is widely distributed in the tropical and sub-tropical India-Western Pacific Region. Eight polymorphic microsatellite loci were developed from *H. leucospilota* by using the protocol fast isolation by amplified fragment length polymorphism of sequences containing repeats and tested in 30 individuals from Hainan Island in China. The number of alleles was 2-6 and polymorphism information content ranged from 0.371-0.694. The levels of expected and observed heterozygosities varied from 0.3913-0.6701 and from 0.1154-0.7000, respectively. No significant linkage disequilibrium was detected for any pairwise combination of loci. Only loci YZHS1-42 deviated from Hardy-Weinberg equilibrium. These polymorphic microsatellite loci may be useful for germplasm conservation of *H. leucospilota*.

Key words: Germplasm conservation; *Holothuria leucospilota*; Microsatellite; Sea cucumber