

Title: Disembowelment induction and gut regeneration of Holothuria polii

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Abstract: Holothurian Disembowelment or evisceration is a unique defense mechanism that involves internal organ expulsion followed by a regeneration period. The present study describes for the first time the evisceration process and the subsequent gut regeneration of Holothuria poliii. Evisceration was chemically induced through injection of 0.5 ml of 0.45M KCl into the perivisceral coelomic cavity. The internal organs were expelled posteriorly through anus within 7-15 minutes depending on holothurian size. Thereinafter, survival, growth and gut regeneration rates were weekly monitored over three months rearing period. Post evisceration, it was noticed that H. poliii has the ability to regenerate its gut by the 6th week; gaining little weight between 9th and 12th week. Gut was observed to be formed from two portions. Further histological study of gut formation defined five stages of regeneration.

Biography

Hassan Abdel-Latif has completed his PhD at the age of 35 years from Mainz University, Germany and postdoctoral studies from Tubingen University, Germany. He has a permanent position as staff member of the Faculty of Science- Alexandria University. The employment start date of Dr. Hassan at the Faculty is 01.07.1977. Former head of zoology department. Currently he works as an emeritus professor at the department of zoology. He has published more than 30 papers in reputed journals and Supervised more than 20 PhD and Master theses .

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Session name :Marine Biology
Category: (Poster presentation)