



Disembowelment induction and gut regeneration of *Holothuria polii* (Delle Chiaje, 1824)

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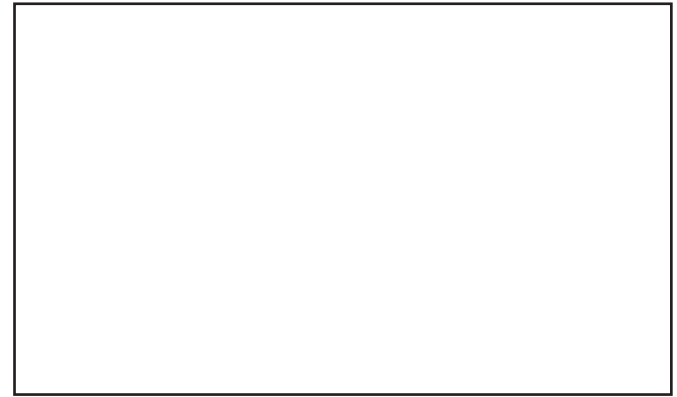
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Abstract:

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 polii*. 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. polii* 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-Aziz ABDEL-LATIF is the professor of



oceanography department and faculty of science from Alexandria University in Egypt.

Recent Publications:

1. Natural coinfection of cultured Nile tilapia *Oreochromis niloticus* with *Aeromonas hydrophila* and *Gyrodactylus cichlidarum* experiencing high mortality during summer

14th International Conference on Aquaculture & Marine Biology | July 20-21, 2020 | Barcelona, Spain

Citation: Hassan Abdel-Aziz ABDEL-LATIF ; Disembowelment induction and gut regeneration of *Holothuria polii* (Delle Chiaje, 1824), Hassan Abdel-Aziz ABDEL-LATIF - Alexandria University – Egypt; Aquaculture & Marine Biology 2020; July 20-21, 2020; Barcelona, Spain.