



Molecular Characterization on the Early Developmental Stages of the Egyptian Toad *Bufo regularis* Reuss

Alaa El-Din H. Sayed , Afaf I. Elballouz , Ekbal T. Wassif

Abstract:

The present study aimed to investigate changes in the protein contents using SDS-PAGE, also using the random amplified polymorphic DNA (RAPD-PCR) assay to identify changes in DNA concentration in the embryos of Egyptian toad *Bufo regularis*. Our experiment started when tadpoles began to feed. The adapted embryos were divided into 3 large tanks of 200 embryos each, collections of samples started from feeding age every three days. Cluster method was used to indicate the distinct distance between the band patterns of different stages. An increase occurred in the concentration of protein fractions in these tadpoles upon metamorphosis and that when metamorphosis was completed. DNA concentration exhibited an evident low values at the premetamorphic stage 44 (105.85 ± 0.519 ng/ μ l) compared with the other more advanced developmental stages 55 and 56 (204.056 ± 0.651 ng/ μ l and 234.55 ± 2.325 ng/ μ l respectively). In conclusion, acquire information about the changes in the molecular content of *Bufo regularis* during metamorphosis has been estimated.

Keywords:

Genes, *Bufo regularis*, Protein, DNAs

Published In:

Open Journal of Genetics , 4 , 343-354