



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

**Genetic fingerprint of some
Oreochromis lines**

B 5601

By

Yasser Mohamed Saad

B.Sc. Agriculture, Faculty of Agriculture, Genetics Department

Ain Shams University, 1996.

**A thesis submitted in partial fulfillment
Of the requirements for the degree
of**

**Master of Science
in**

**Agricultural Science
(GENETICS)**

Genetics Department
Faculty of Agriculture
Ain Shams University

2000

APPROVAL SHEET

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Date of examination / / 1999

**Genetic fingerprint of some
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ABSTRACT

Yasser Mohamed Saad Genetic fingerprint of some *Oreochromis* lines. Master of Science, Genetics Department, Fac. of Agric., Ain Shams University, 1999

The genetic variations among three lines of *Oreochromis niloticus* collected from different locations in Egypt were studied based on biochemical and molecular levels. The five isozyme systems, Esterase (*Est*), Lactate dehydrogenase (*Ldh*), Malate dehydrogenase (*Mdh*), Acide phosphatase (*ACPH*) and Superoxide dismutase (*Sod*) were studied in ten organs for each line. To discriminate isozymes variations among *Oreochromis* fish populations, different synthetic esterase substrates; α -naphthylbutyrate, α -naphthylpropionate and α -naphthylvalerate were applied. Muscle and gills esterases had the value of line-substrate band specificity in comparison to both kidney and eye. SDS-PAGE protein electrophoretic patterns were employed to study inter and intra population variations of *Oreochromis*- lines. each population had a unique protien-banding pattern. RAPD markers were successfully used to discriminate nuclear genetic variations among the applied three lines. In this situation, thirteen different random primers (decamers) were used. Only, six primers (OpB-8, OpB-14, G12, A11, UBC-9 and UBC-4) succeeded in catching and amplifying genomic DNA of all lines.

Key word:

Fish, Nile Tilapia, *Oreochromis* Electrophoresis, -protein, Isozymes, allozymes, DNA, RAPD-marker, Ontogenic variation.



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