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جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15 – 25c and relative humidity 20-40 %



ثبكة المعلومات الجامعية





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Genetic studies on some tilapia species under different salinity conditions

Ву

Ibrahem Hassan Ibrahem Hussien
B.Sc. Agriculture (Genetics), Zagazig University, 1993.

A thesis submitted in partial fulfillment

of

Master of Science

in

Agricultural Science (GENETICS)

Genetics Department Faculty of Agriculture Ain Shams University

2000

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APPROVAL SHEET

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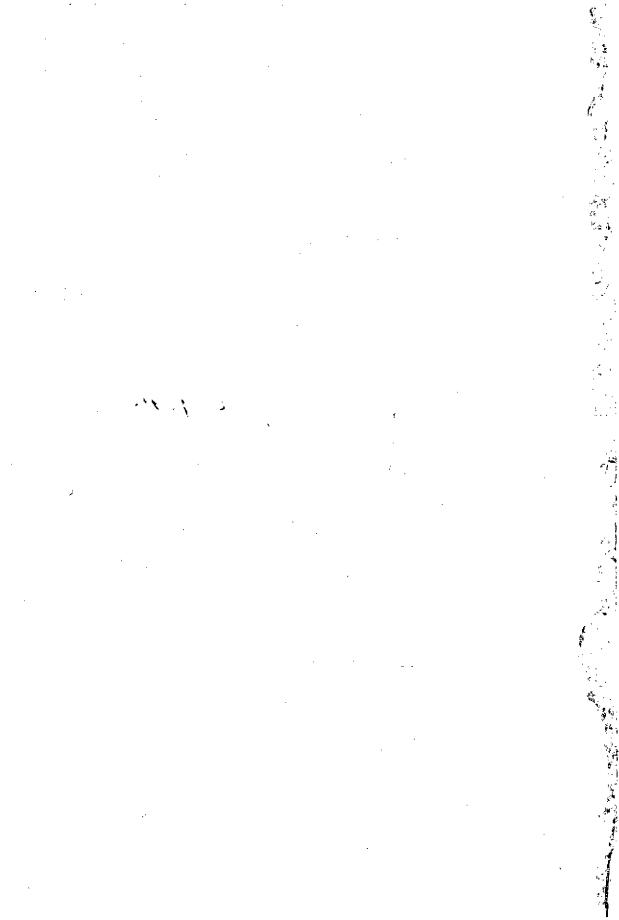
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Abstract

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The present study was designed to investigate the effect of different salinity levels on growth performance, condition factor, and some biochemical and molecular genetic markers of four tilapia populations under controlled laboratory conditions.

These populations belong to three species; Oreochromis niloticus, O. aureus, and Tilapia zillii, collected from three different locations in Egypt, (Abbassa, Maryout, and Manzala). Three gradual salinity concentrations (0, 10 and 17 ppt) were used. The average initial weight for the studied populations was approximately equal to 8.68 ± 0.38 g, which depend on size.

SDS-PAGE for eye protein and isozymes, such as esterase, alcohol dehydrogenase, lactate dehydrogenase and malate dehydrogenase were applied. Both esterase and lactate dehydrogenase were more sensitive under salinity than the others.

RAPD markers were successfully used to discriminate nuclear genetic variations among the applied populations. Six different random primers (decamers) in PCR amplification were used with bulked samples from each species.

Key words: Fish, species, fingerlings, *Oreochromis, Tilapia*, salinity, growth rate, electrophoresis, protein, isozymes, DNA, polymorphism, RAPD-marker.



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