

DEDICATION

**To donors who don't want
rewards, my father, my
grandfather, my
grandmother, my mother, my
uncles. Khidir, Salah and Sid
.Ahmed**

**To my darling sisters Siham,
.Nahid and Amna**

**To my brothers, Hassan,
Ahmed, Abdurrahman and**

**Yasser and prof. Heider
.Othman. To D. Ahmed Omer
To my husband Zarroug and
our kids Mubarak, Leena and
.Aaya, with great love**

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ABSTRACT

This study was conducted on 30 heads (10 of each breed) of three Sudanese domestic goat breeds (Desert goat, Nubian goat and Taggar goat) to pursue complete mitochondrial DNA analysis using PCR-RFLP method to detect the mitochondrial DNA diversity of two mit-DAN haplogroups, lineage A and lineage D. The results revealed that most individuals of the three breeds belonged to lineage A with frequencies 0.2 of Desert goats, 0.6 of Nubian goats and 0.6 of Taggar goats. Some of the individuals belonged to modified lineage A with frequencies 0.2 of Desert goats, 0.2of Nubian goats and 0.2 of Taggar goats; no

individual of each belonged to lineage D. In conclusion, the appearance of individuals that belonged to modified lineage A in the different goat breeds might be due to mutation resulted from insertion or deletion of events and might a criterion of the Sudanese indigenous goat breeds. However this suggestion needs more confirmative analysis.

المستخلص

أجريت هذه الدراسة على ثلاثين رأساً من ثلاث سلالات للماعز السوداني لمعرفة صفاتها الوراثية من جهة الأمهات وذلك بدراسة وجود نوعين من المجموعات D و A تنتمي للحمض النووي للمايتوكوندريا. عشرة رؤوس من الماعز النوبي مستجلبة من ولاية نهر النيل، عشرة رؤوس من الماعز الصحراوي مستجلبة من ولاية شمال كردفان عشرة رؤوس من ماعز جبال النوبة (ألتقر) مستجلبة من ولاية جنوب كردفان. تم أستخلاص الحمض النووي من عينات الدم ثم اجريت مزيد من التحليلات على الحمض

النووي باستخدام طريقة PCR-RFLP. اظهرت النتائج عدم انتماء أي من أفراد السلالات الى المجموعة D وان معظم الافراد تنتمي للمجموعة A بالنسب الاتية: من . 20 للماعز الصحراوي، 60 للماعز النوبي و 6. 0 للتقر. كما ظهرت مجموعة جديدة متحورة من المجموعة A بالنسب الاتية . 20 للماعز الصحراوي، 20 للماعز النوبي و. 20 للتقر. ظهور مجموعة من الافراد في كل المجموعات قيد الدراسة تنتمي للمجموعة المتحورة A قد تكون خصائص جينية تمتاز بها السلالات السودانية، وللتأكد من ذلك يجب ان تخضع هذه السلالات للمزيد من البحوث الجينية.

LIST OF CONTENTS

I	DEDICATION
Ii	ACKNOWLEDGEMENTS
Iii	ABSTRAC
Iv	ARABIC ABSTRACT
V	LIST OF CONTENTS
Vii	TABLE OF TABLES
1	CHAPTER ONE INTRODUCTION
3	CHAPTER TWO LITERATURE REVIEW
3	(Domestic goats (<i>Capra hircus</i> .2.1
3	Sudanese Goat Breeds .2.2

3	Sudanese Nubian Goats .2.2.1
4	Sudanese Desert goats .2.2.2
4	(Sudanese Mountain Goats (Tagar.2.2.3
4	Animal breed characterization .2.3
5	Phenotypic characterization .2.3.1
5	Variation in 2body size, Height at withers and Body weight gain.2.3.1.1
6	The reproduction and production performance .2.3.1.2
7	Genotypic characterization .2.3.2
7	Domestic animal biodiversity .2.3.3
7	Extirpation of biodiversity in farm animals by genetic processes .2.3.3.1
8	Extirpation of biodiversity in Sudanese domestic animals .2.3.3.1.2
9	Breed conservation of domestic animals .2.3.4
9	Characterization of animal breeds by molecular genetics .2.3.4.1
10	DNA-based polymorphisms .2.3.4.2
11	DNA-technology and genome mapping .2.3.4.3
11	(Ychromosomespecificsinglenucleotidepolymorphism(SNP.2.3.4.4
11	Mitochondrial DNA (mtDNA) markers .2.3.5
12	Molecular genetics tools -2.3.5.1
13	2Mitochondrial DNA .2.3.6.
14	Mitochondrial DNA analysis in sheep .2.3.6.1
14	(Mitochondrial DNA sequencing (mtDNA lineages .2.3.6.2
14	Mitochondrial DNA sequencing(mtDNA lineages) distribution.2.3.6.3
15	Genetic structure of domestic goats.2.3.6.4
17	CHAPTER THREE: MATERIALS AND METHODS

17	Breeds.3.1
17	DNA extraction.3.2
18	PCR method.3.3
18	RFLP method.3.4
18	Mt-lineage typing.3.5
23	CHAPTER FOUR: RESULTS
28	CHAPTER FOUR: DISCUSSION
31	REFERENCES

LIST OF FIGURES AND TABLE

20

A photograph of Desert goats Figure 1

21	A photograph of Nubian goats	Figure 2
22	A photograph of Tagar goats	Figure 3
25	PCR products of the individuals of Desert, Nubian and Tagar goats	Figure 4
26	Digested PCR products by restriction enzyme of the individuals of .Desert, Nubian and Tagar goats	Figure 5
27	Products of the enzyme digestion in the individuals of Desert, .Nubian and Tagar goats	Table 1