### **Dedication**

To

The knowledgeable local people and communities of AL-arshkol village everywhere.

To

All researchers who want to know how local people can develop their communities and natural vegetation

# **Mohammed**

## Acknowledgements

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#### **Abstract**

This dissertation deal with ecological taxonomy on study of the vegetation of AL-arshkol hills, about 40Km2 wests EL-Dueim Town, White Nile state.

Taxonomic studies included freshly plant collection, perpetration, identification and classification of plants species in the study area, and incorporation of herbarium specimens in the herbaria as well as botanical description of the some important plants with hand drawing illustration and special reference uses.

85 species belonging to 31 families were identified. Scientific names of collected plants has have checked and updated and check list of all plants found in the area has been prepared. Almost 50% of the species were found to have grazing value, medicinal and indigenous uses.

Ecologically and according to the dominancy five associations were identified. Also found changes in vegetation cover communities compared to pervious studies were noticed.

The study resulted in identification of five plants associations with short description to their habitats. This study recommended that perception and awareness of local people and pastorals should be increased towards the conservation, protection, and management of the range plants in the study area, and more ecological studies should be carried out in the study.

دراسة بيئية وتصنيفية للغطاء النباتي بجبال العرشكول . ولاية النيل الأبيض

#### الخلاصة

هده الدراسة تمثل دراسة بيئية وتصنيفية للغطاء النباتي بجبال العرشكول على بعد 40 كيلو متر غرب الدويم و لاية النيل الأبيض .

الدراسات التصنيفية تشمل جمع النباتات الحية, تجهيزها, تعريفها تصنيفها, وترتيبها في المعشبة بجانب الوصف المختصر لبعض النباتات المهمة مع استخداماتها والرسم باليد لتوضحها.

فى هدة الدراسة تم توثيق وتعريف 85 نوع نباتي تنتمي إلى 31 عائلة نباتية. تمت مراجعة الاسماء العلمية لكل النباتات التى حصرت. 50% من النباتات التى وجدت لها قيمة رعوية واستخدامات محلية.

من خلال الملاحظات الحقلية والدراسات البيئية تم توزيع المجتمعات النباتية الى خمس مجموعات نباتية مع تعريف اشكالها من اشجار وشجيرات واعشاب ووصف بيئاتها المحلية.

ايضا وجدت تغيرات فى الغطاء النباتى فى المنطقة مقارنة مع الدراسات السابقة. توصى الدراسة بزيادة الوعى للمواطنين المحلين تجاة المحافظة والحماية لادارة نباتات المراعى بالمنطقة بجانب زيادة الدراسات البيئية بالتركيز على توزيعات الغطاء النباتى ومساقط المياة بالمنطقة. كما توصى الدراسة بالمزيد من الدراسات لمعرفة كل النباتات الموجوده وتصنيفها وتحديث اسمائها ومعرفة النباتات المنقرضة و الغازية.

## **Table of contents**

No	Content	Page
	Dedication	i
	Acknowledgements	ii
	Abstract	iii
	Abstract (Arabic)	iv
	Table of contents	V
	List of Plates	vii
	List of Figures	viii
	Abbreviations	ix
	<b>CHAPTER ONE: INTRODUCTION</b>	
1-1	General	1
1-2	The Problem Statement	3
1-3	The Objectives of Study	3
4-1	Justifications	3
	CHAPTER TWO: STUDY AREA	
2-1	Location	4
2-2	Geomorphology	4
2-3	Geology	4
2-4	Climate	7
2-4-1	Temperature	7
2-4-2	Precipitation and Drainage	7
2-4-3	Evaporation	7
2-5	Vegetation and Soil	7
2-6	Wind	8
2-7	Water Supply	8
2-8	Catchments	9
2-9	Food and Sand Transport CHAPTER THREE: MATERIALS AND METHODS	9
3-1	General	10
3-1-1	Field Equipments	10
3-1-2	Herbarium Stage	10
3-2	Materials Collected	10
3-2-1	Sites of Collection	10
3-2-2	Preparation of Specimens	10
3-3	Methods Used	11
3-3-1	Field Observation	11
3-3-2	Specimens Examination	11

3-3-3	Species Identification	11
3-3-4	Plants Description	12
3-3-5	Characteristics and Uses	12
3-3-6	Line illustration	12
	CHAPTER FOUR: RESULTS AND DISCUSSION	
4 -1	The Ecology of the Study Area	13
4-1-1	General	13
4-1-2	Plants Associations	13
4-1-2-1	Setaria and Aristida Association	14
4-1-2-2	Aristida and Eragrostis Association	14
4-1-2-3	Crotalaria and Schoenfeldia Association	<b>15</b>
4-1-2-4	Acacia tortilis and Cenchrus Association	<b>16</b>
4-1-2-5	Cenchrus and Senna Association	<b>16</b>
4-1-3	Vegetation Changes	17
4 -2	Check List	19
4-3	Species Description	22
4-3-1	Amaranthus graecizans L	22
4-3-2	Aristolochia bracteolata Lam.	24
4-3-3	Celosia argentea L.	<b>26</b>
4-3-4	Cenchrus biflorus Roxb.	28
4-3-5	Commelina kotschyi Hassk	<b>30</b>
4-3-6	Corchorus tridens L	<b>32</b>
4-3-7	Cortalaria senegalensis (Pers.)	34
4-3-8	Echinochloa colona(L.) Link.	<b>36</b>
4-3-9	Euphoribia aegyptiaca Boiss	38
4-3-10	Indigofera hochstetteri Bak	40
4-3-11	Ipomoea cordafana Choisy.	42
4-3-12	Portulaca oleracea L.	44
4-3-13	Senna alexadrina L.	46
4-3-14	Solanum dubium Fresen.	48
4-3-15	Tribulus terrestris L.	<b>50</b>
	CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS	
5-1	Conclusion	52
5-2	Recommendations	53
	REFERENCES	54
	Appendixes	57

## **List of Plates**

No	Name	Page
4-1-2-1	Setaria and Aristida Association	14
4-1-2-2	Aristida and Eragrostis Association	14
4-1-2-3	Crotalaria and Schoenfeldia Association	15
4-1-2-4	Acacia tortilis and Cenchrus Association	16
4-1-2-5	Cenchrus and Senna Association	16

## **List of Figures**

No	Name	Page
1-1	Sudan Vegetation Zones	5
1-2	Location of the Study Area	6
4-3-1	Amaranthus graecizans L	23
4-3-2	Aristolochia bracteolata Lam.	25
4-3-3	Celosia argentea L <b>.</b>	27
4-3-4	Cenchrus biflorus Roxb.	29
4-3-5	Commelina kotschyi Hassk	31
4-3-6	Corchorus tridens L	33
4-3-7	Cortalaria senegalensis (Pers.)	35
4-3-8	Echinochloa colona( L.) Link.	37
4-3-9	Euphoribia aegyptiaca Boiss	39
4-3-10	Indigofera hochstetteri Bak	41
4-3-11	Ipomoea cordafana Choisy.	43
4-3-12	Portulaca oleracea L.	45
4-3-13	Senna alexadrina L.	47
4-3-14	Solanum dubium Fresen.	49
4-3-15	Tribulus terrestris L.	51

### **Abbreviations**

UNDP United Nation development program FAO Food and Agriculture Organization

**FNC** Forest National Corporation

**UN United Nations**