

**ECOLOGY OF MEDICINAL PLANTS AND THEIR INTEGRATION INTO PRIMARY
HEALTHCARE IN KAJIADO COUNTY, KENYA**

BY

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Abstract

The study was conducted with aim of assessing the composition, distribution, abundance and the community structure of local medicinal plants; and determining the modes of exploitation and contribution of these plants in primary health care and livelihoods of rural communities in Marble Quarry (KMQ), Mile 46 and Oltepesi at Central Kajiado, Kenya. Data were obtained using semi-structured forms to record topics related to the medicinal use of specific plants and through vegetation sampling in the field. The medicinal use value of plant species in the research sites did not reveal significance differences ($df=2$, $F= 0.956$, $P=0.388$, $\alpha=0.05$). Relative abundances of species in the three research sites were highest for *Balanites aegyptiaca* (36.92%) in KMQ, *Commiphora africana* (28.41%) and *Balanites aegyptiaca* (27.27%) followed by *Acacia drepanolobium* (21.6%) in Mile 46, while in Oltepesi, *Balanites aegyptiaca* (39.4%) was the dominant species. This indicated that the area was dominated by only a few medicinal plant species. At Mile 46 and KMQ all the species had a contagious distribution while in Oltepesi, one species *Albizia anthelmintica* showed a regular distribution.

In Oltepesi research area, lower species diversity and evenness were recorded as compared to the other two sites, though no significant differences ($df = 2$, $P=0. 259$, $\alpha = 0.05$) was noted between the sites. The species diversity in the area was of homogenous type. Oltepesi had the highest beta diversity (β) (2.52) followed equally by KMQ and Mile46 (0.846).

The medicinal use value index of a plant species was highly correlated with the sites and this indicated that the plant species had great contribution to primary health care and livelihood of the society. The main threats of medicinal plants in the area were deforestation, drought, lack of awareness, urbanization, ignorance and expansion of human settlements in the study areas but

didn't reveal significant difference statistically ($df=2$, $F=0.564$, $P=0.571$ and $\alpha=0.05$). An integrated conservation strategy is required in the area to conserve many of the medicinal species.

CHAPTER ONE

1.1 Introduction

1.2 Objectives of the study

1.3 Significance of the study

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CHAPTER TWO

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CHAPTER THREE

3.1 Materials and Methods