

# Chapter I

## Introduction & Previous Work

### 1-Introduction

Studying of the Cretaceous rocks in the last years especially in Sinai attracted the attention of geologists and stratigraphers to explore the different regions for oil potentiality and ore deposits. A few work had been carried out on the stratigraphy of the three measured sections (Gebel Ekma, East Themed area, and Gebel Yelleg) and mostly based on foraminifera; Cherif *et al.* (1989a, b), Ammar & Afifi (1992), Orabi & Ismail (1993), Ziko *et al.* (1993), El-Sheikh (1999), and Ismail (2000). Except the recording of some species by Moon & Sadek (1921) from Gebel Yelleg, and the description of some species by Fourtau (1904-1921) and Abbass (1962, 1963) from the different localities no detailed paleontological studies of macrofossils on the studied sections were carried out.

#### 1. 1. Location of the studied sections:

##### a- Gebel Ekma

Gebel Ekma is located on the south-western part of Sinai to the south of Gebel Nezzazat and lies between Latitudes  $28^{\circ} 37' - 28^{\circ} 41' \text{ N}$  and Longitude  $33^{\circ} 12' - 33^{\circ} 17' \text{ E}$ .

##### b- East Themed area

The area of study is located to the East of Themed Village and bounded by Latitudes  $29^{\circ} 38' - 29^{\circ} 42' \text{ N}$  and Longitudes  $34^{\circ} 24' - 34^{\circ} 36' \text{ E}$  (Figure 1).

##### c- Gebel Yelleg

This is the largest and most prominent of all the isolated hills in this part of northern Sinai. It is roughly oval in shape, measuring fifty kilometres long and twenty kilometres wide lying with its longer axis running north-east to south-west. Gebel Yelleg Massif represents one of the great elongated asymmetric