سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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بالرسالة صفحات لم ترد بالأصل

OSTRACOD AND PALYNOLOGICAL STUDIES ON THE UPPER CRETACEOUS (CENOMANIAN) SEDIMENTS IN WADI EL DAKHL, GULF OF SUEZ, EGYPT

THESIS

Submitted to the Faculty of Science

Zagazig University

BY

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For

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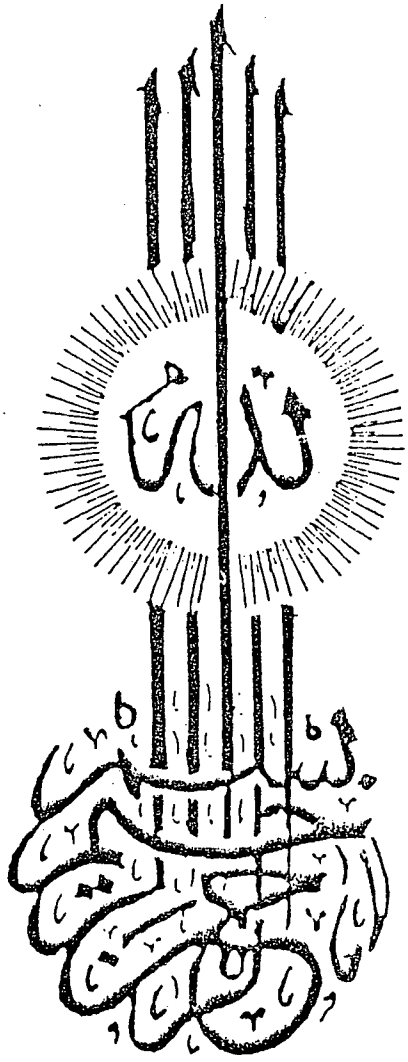

"اقرأ باسم ربك الذي خلق . خلق الإنسان من علق . اقرأ وربك الأكرم .
الذي علم بالقلم . علم الإنسان مالم يعلم".

"صدق الله العظيم"

سورة العلق

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INTRODUCTION

The Cretaceous rocks cover large areas of the Egyptian lands and are present in the subsurface of the most areas covered by Cenozoic rocks. The lithologies of the Cretaceous rocks differ from Lower to Upper Cretaceous as well as from north to south Egypt due to the difference in the depositional environments. In the Eastern Desert the lithologies of the Upper Cretaceous are different from north to south, they are represented in Gabal Ataqa and the Northern Galala by limestones and dolostones while they consist of sandstones, shales, marls, limestones and chalk in Wadi El-Dakhl and the surrounding areas.

Lithologically, the Lower Cretaceous rocks in the Southern Galala consist mainly of varicoloured, generally white, cross-bedded, highly fractured sandstones, while the Cenomanian is made up of shales, siltstones, sandstones and limestones, the limestones are rich in pelecypod and gastropod molds and several echinoid spines and molds. On the other hand, the Turonian sediments consist mainly of limestones and dolostones with minor shales and sandstones in the lower part. While the remaining Upper Cretaceous sediments are made up of sandstones, shales, limestones and are terminated by a succession of snow white, massive chalk and chalky limestones.

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From the paleontologic side, many studies were carried out on the Upper Cretaceous of the Southern Galala but left Ostracoda and palynological studies almost neglected especially in the region of Wadi El Dakhl. The aim of the present work is to study the ostracod and palynological content of the Cenomanian rocks in Wadi El Dakhl in order to establish their biostratigraphic and chronostratigraphic value and to study their probable paleoenvironments and to compare them with other similar Cenomanian successions in Egypt and neighbouring countries.

The studied section lies at the western end of Wadi El Dakhl (long. 32°25' N and lat. 28°41' E), near Bir El Dakhl, in the Southern Galala Plateau, north Eastern Desert (Figs. 1, 2).

The practical side of this study depends on 57 rock samples covering a total thickness of about 156 m in the studied section. The samples represent all lithologic changes, and are examined megascopically for determining their lithologic characters. The stratigraphic succession, rock units, position of rock samples and a brief description of the lithology is represented in Fig. (3).

All soft and hard rock samples were disintegrated, washed and dried by the known traditional techniques. The washed residue have been subjected to picking and sorting routines to identify their ostracod content.

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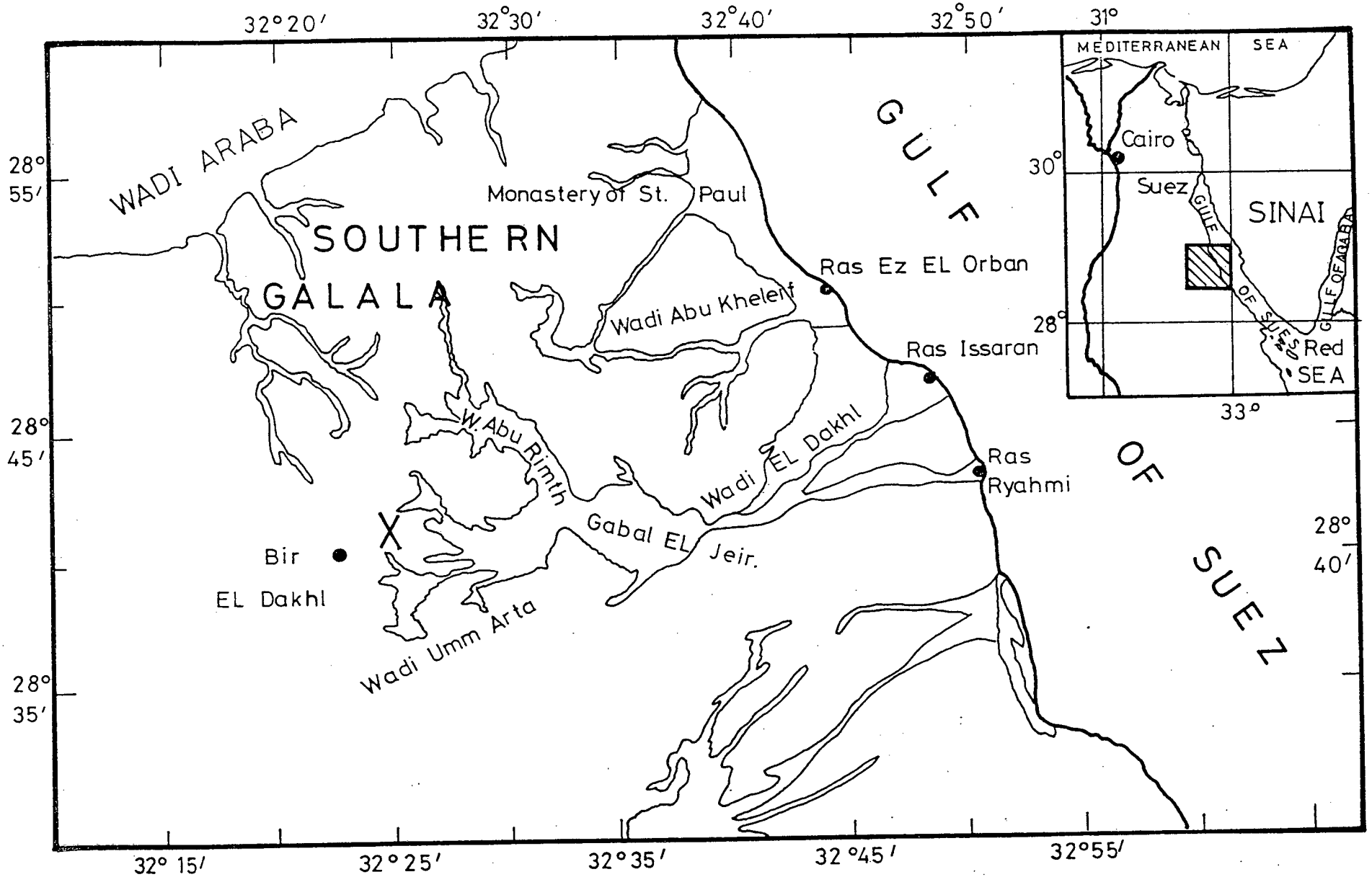

FIG.(1): LOCATION MAP OF THE STUDIED SECTION(X)-THE WESTERN END

The palynological studies in this work are based on 25 samples, the microfloral content have been examined after preparing the samples for palynological investigation by applying the method of **Herngreen (1983).**

Twenty selected samples from the hard rocks were thinly sectioned and described for their microfacies studies and used in paleoenvironmental interpretations (Fig. 10).

The recorded ostracods and palynomorphs were identified followed historically for their synonyms and microphotographed by using the Scan Electron Microscope (S.E.M.) for ostracods and the polarizing microscope for palynomorphs. Only the zonal species were described. The relative abundance and the vertical distribution of all recorded microfossils are represented on range and frequency faunal distribution charts which were used in the biostratigraphic differentiation (Figs. 4, 5).

All the materials are housed in the Museum of the Geology Department, Faculty of Science, Zagazig University.

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