INTRODUCTION

INTRODUCTION

Species of *Chenopodiaceae* (Goose - foot family), are widely distributed in salt, arid and semi-arid parts of the world. According to ***Singh & Jain*** (1981), the family includes 106 genera and 1425 species distributed chiefly in Australia, the Pampas, the Prairies, the Mediterranean Coast, the Karroo (South Africa), the Red Sea shores, the South-West Caspian Coast, Central Asia and the salt steppes of East Asia.

Bentham and Hooker (1862-1883) classified the *Chenopodiaceae* into two sub-families: *Chenopodieae* and *Baselleae.* Sub-family *Baselleae* is distinguished from *Chenopodieae* in having twining stems, coloured sepals, anthers opening by terminal pores or pore-like slits and berry-like fruit. This sub-family has been treated as a separate family by several scholars including ***Hutchinson, Cronquist*** and ***Takhtajan*** .

Bentham and ***Hooker*** (op-cit.) placed the family in their *Curvembryae*, while ***Engler and Diels*** (1936) included it in *Centrospermae.* ***Hutchinson*** (1959-1960) treated it under his *Chenopodiales*, while ***Cronquist*** (1968) ***and Takhtajan*** (1969) included it in the *Caryophyllales.*

From an economic standpoint, the family is of considerable importance. Some species are cultivated and used as vegetables e.g.

spinach *(Spinacia oleracea)* also sugar beet (*Beta vulgaris* var. *ciliata*) is cultivated as a source of sugar. Some plants can grow in saline soils where no other plant can grow and provide fodder for cattle and other domestic animals. Other species are used in medicine : the lipids from leaves of spinach (*Spinacia oleracea*) possess antibacterial properties and the fruits are demulcent and diuretic. Also, the oil obtained from seeds of *Chenopodium anthelminticum* and *C.ambrosioides* is used as a vermifuge (***Singh and Jain,*** 1981). According to ***Gupta*** (1975), the beet root gives a dye and the ash of *Salsola and Suaeda* gives washing soda. Few species are used as ornamentals such as *Kochia scoparia* while *Suaeda maritima* is used for reclamation of saline soils and for fixing sand along sea shores. This plant is also a good fodder for camels (***Singh & Jain op-cit***)

In Egypt, the family is represented by 25 genera, 74 species, 3 sub-species, 15 varieties and 3 forms (***Tackholm,*** 1974).

Several genera are taxonomically difficult and required systematic revision. ***Safa*** (1992) revised taxonomically the leafy chenopod taxa of Egypt, belonging to the genera : *Chenopodium, Beta & Atriplex*. ***Turki*** (1993) revised systematically the species of *Salsola* native to Egypt. His revision revealed the presence of 14 species. ***Moubark*** is currently revising the native succulent taxa including those of the genera : *Bassia, Halogeton, Suaeda, Traganum, Hammada* and *Cornulaca*.

The aim of this work is to revise systematically the native species of the genera : *Halocnemum, Arthrocnemum, Salicornia Noaea* and *Anabasis,* which are inhabitants of salt marshes, arid and semi-arid parts of Egypt. In this respect, this revision would serve as a base for the preparation of an account on *Chenopodiaceae* for the newly planned "Flora of Egypt".

It was felt, that the systematic revision of the taxa of *alocnemum, Arthrocnemum, Salicornia , Noaea* and *Anabasis* require thorough field studies and intensive ecological investigations. On the other hand, the chemistry of hydrocarbons, sterols and fatty acids of the revised taxa will be carried out with the hope that it proves its significance as a tool in the taxonomy of the studied group.