

## ADDITIONS TO THE FLORA OF QATAR

By

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### أضافات للفلورا القطرية

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إن جميع العينات والدراسات على نباتات قطر تعتبر دراسة محدودة وبدأت منذ السبعينات، كان آخر رصد للنباتات قطر (الامين ١٩٨٣) حيث قدم ٣٠٠ نوع تابعة إلى ٢٠٢ جنس وتقع في ٥٧ فصيلة والآن يتم تصحيح وإضافات للفلورا القطرية في دراسة جارية.

هذا وقد اتضح أن هناك نباتات تسجل لأول مرة في الفلورا القطرية وهي عبارة عن أشنان وسرخس ونباتات زهرية ممثلة في ٢٢ نوع و٨ أجناس وفصيلة تسجل لأول مرة في قطر.

**Key Words:** Flora of Qatar, additions.

### ABSTRACT

Collections and earlier studies on the plants of Qatar are limited and of recent origin — since the seventies. The latest of these in 1983 (El Amin) listed 300 species belonging to 202 genera in 56 families. At present, a study incorporating additions and corrections to the flora of Qatar is in progress.

Field studies on the flora of Qatar revealed a number of first record. These include lichens, a fern and flowering plants. The latter includes, 28 species, 12 genera and one family as first records for Qatar. In total these species fall in 18 families and are detailed in this study.

## INTRODUCTION

Our knowledge of the flora of Qatar is of recent origin. The first known collector is Mrs. Cherry Willcox who collected in 1970-1973 in Qatar, Oman and Abu Dhabi. Duplicates are kept at Kew and some of her hand illustrations are at Qatar. The total collection amounted to 324 numbered specimens (including specimens of other Gulf states).

The first study of the flora of Qatar was in response to a request by UNDP, covering the study of the natural vegetation and flora of Qatar and an assessment of the actual range and pasture situation (1). The outcome of his study for the period 17 March 1975 to 20 April 1975 was a total of 297 numbered specimens belonging to 211 species in 155 genera in 46 families. In addition, the study included data on Qatar's geology, topography, soils and climate.

During the period 29 March 1977 to 5 April 1977 a total of 332 numbered specimens belonging to 255 species falling in 179 genera and belonging to 46 families were collected (2).

Between 1978-1980 and 1983-1986, the departmental herbarium was established with over 3000 numbered specimens collected and, the first detailed flora for Qatar and its ecology was produced. The total number of species listed was 313 taxa belonging to 212 genera and 56 families (3).

Between March 1983 — end of May 1983 on a sponsorship by the Arab Organisation for Agricultural Development, over 1000 numbered specimens were collected amounting to 300 species belonging to 202 genera and 58 families (4). In this communication we add to the above contributions by updating the flora with additions up to December 1997. It is hoped that in the near future the latest check-list of the flora of Qatar will be presented.

## MATERIAL AND METHODS

Qatar is a small country yet it embraces many plants representing various vegetation belts. A number of taxa

within its flora occur in the Mediterranean regions; some are typical desert and semi-desert species of sub-saharan affinities. Being mostly a coastline, many halophytes occur and are well-adapted to Qatar's climate and its predominantly saline soils.

Since 1993, we attempted to record by photography as well as collected specimens all taxa. Equally a seed collection was started as a base for a national collection.

Seasonally dictates on when it is best to collect ephemerals and annuals but we attempted to collect throughout the year. However, the rainy seasons controlled the diversity and density of our find.

## RESULTS AND DISCUSSIONS

The results of this undertaking is an appreciable addition to the local University of Qatar herbarium and new additions to the flora. These are given on Table (1) accompanied by remarks on their frequency and locality. Selected photographs are included with the text (Plates 1-6). Though these species are considered as an interesting find, the occurrence of the adder's tongue and a fruticose lichen remain the most interesting find (5, 6).

**Table (1). Taxa added to the Flora of Qatar (up to June 1997)**

### I. Lichens:

1. Fruticose: *Ramalina farinosa* Ach. on coastal rocky terrain.
2. Crustose: *Acarospora* sp., *Buellia* spp., and *Caloplaca* spp. (All crustose lichens are widespread throughout Qatar and need further more detailed investigations).

### II. Ferns:

*Ophioglossum polyphyllum*, A. Braun, Ophioglossaceae. frequent and seasonal in C. Qatar.

## III. Flowering Plants:

Family	Species	General Remarks
<b>Dictyyledons:</b>		
1. Aizoacea	<i>Zaleya pentandra</i> (Lt) Jeffr	very rare, weed of waste land
2. Boraginaceae	<i>Heliotropium zeylanicum</i> (Burm. f.) Lam.	weed of arable land.
3. Caesalpinaceae	* <i>Cassia occidentalis</i> L. * <i>C. senna</i> L.	occasional garden weed. localized, Doha
4. Caryophyllaceae	<i>Silene conica</i> L.	rare: road to Um Bab, Dukhan and central "hoo-zooms".
5. Chenopodiaceae	<i>Salicornia europaea</i> L.	coastline, Dhakira and El Khor.
6. Compositae	<i>Gnaphalium luteo-album</i> L.	weed of cultivation
	<i>Koelipinia linearis</i> Pall.	localised, C. Qatar.
	<i>Matricaria chamomilla</i> L.	occasional, El Shahaneya and Doha.
	<i>Pluchea dioscoridis</i> (L.) DC.	widespread, near buildings at Doha.
	<i>Pulicaria gnaphalodes</i> (Vent.) Boiss.	widespread, 'miramia' Ar
7. Cruciferae	<i>Coronopus didymus</i> (L.) Sm.	localised, Univ. car park.
	<i>Farsetia</i> sp.	rare, road to Um Bab.
	<i>Lepidium sativum</i> L.	roadside, annual weed.
	<i>Sisymbrium orientale</i> L.	wasteland weed.
8. Cuscutaceae	<i>Cuscuta pentagona</i>	common parasite on ornamental annuals. Origin U.S.A.
9. Euphorbiaceae	<i>Euphorbia arabica</i> Boiss.	occasional, mud plain near Abu Samra.
	<i>Phyllanthus nuriri</i> L.	widespread, garden weed.
10. Gentianaceae	<i>Enicostema axillare</i> (Lam.) A Raynal	localised, Univ. car park.
11. Malvaceae	<i>Abutilon asiaticum</i>	rare.
	<i>Abutilon figarianum</i> Webb.	rare.
12. Orobanchaceae	<i>Orobanche ramosa</i> L.	parasite on <i>Solanum nigrum</i> .
13. Oxalidaceae	<i>Oxalis corymbosa</i> DC.	blue-flowered weed, collected only once.
14. Papilionaceae	<i>Indigofera oblongifolia</i> Forssk.	localised, one site only. near Doha Central Suk.
15. Solanaceae	<i>Datura innoxia</i> Mill.	rare, weed on round-about, Doha.
16. Umbelliferae	<i>Torilis nodosa</i> (L.) Gaertn.	rare roadside weed.
17. Zygophyllaceae	<i>Tribulus cistoides</i> L.	localised, one site only, El Shahaneya race grounds. No fruits formed except one though plant with many flowers.
<b>Monocotyledons:</b>		
18. Potamogetonaceae	<i>Halodule uninervis</i> (Forssk.) Asch.	widespread, sea-grass.

\* now, *Senna*: *S. alexandrina*, *S. occidentalis*.

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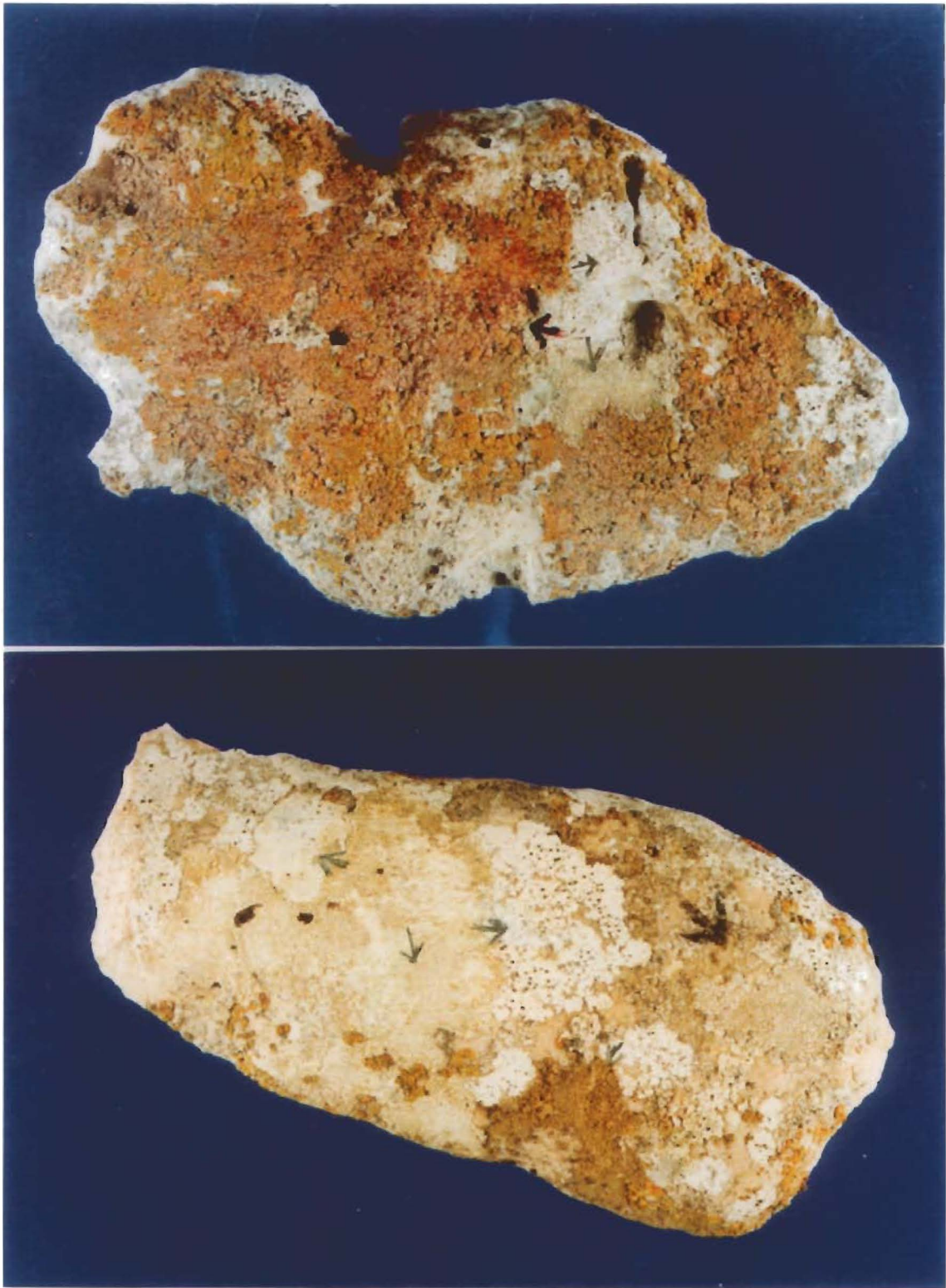


Plate 1. a, b. Crustose lichens.



Plate 2. a. *Tribulus cistoides*, b. *Abutilon figarianum*.



Plate 3. a. *Sisymbrium orientale*, b. *P. gnaphalodes*, c. *Matricaria chamomilla*.

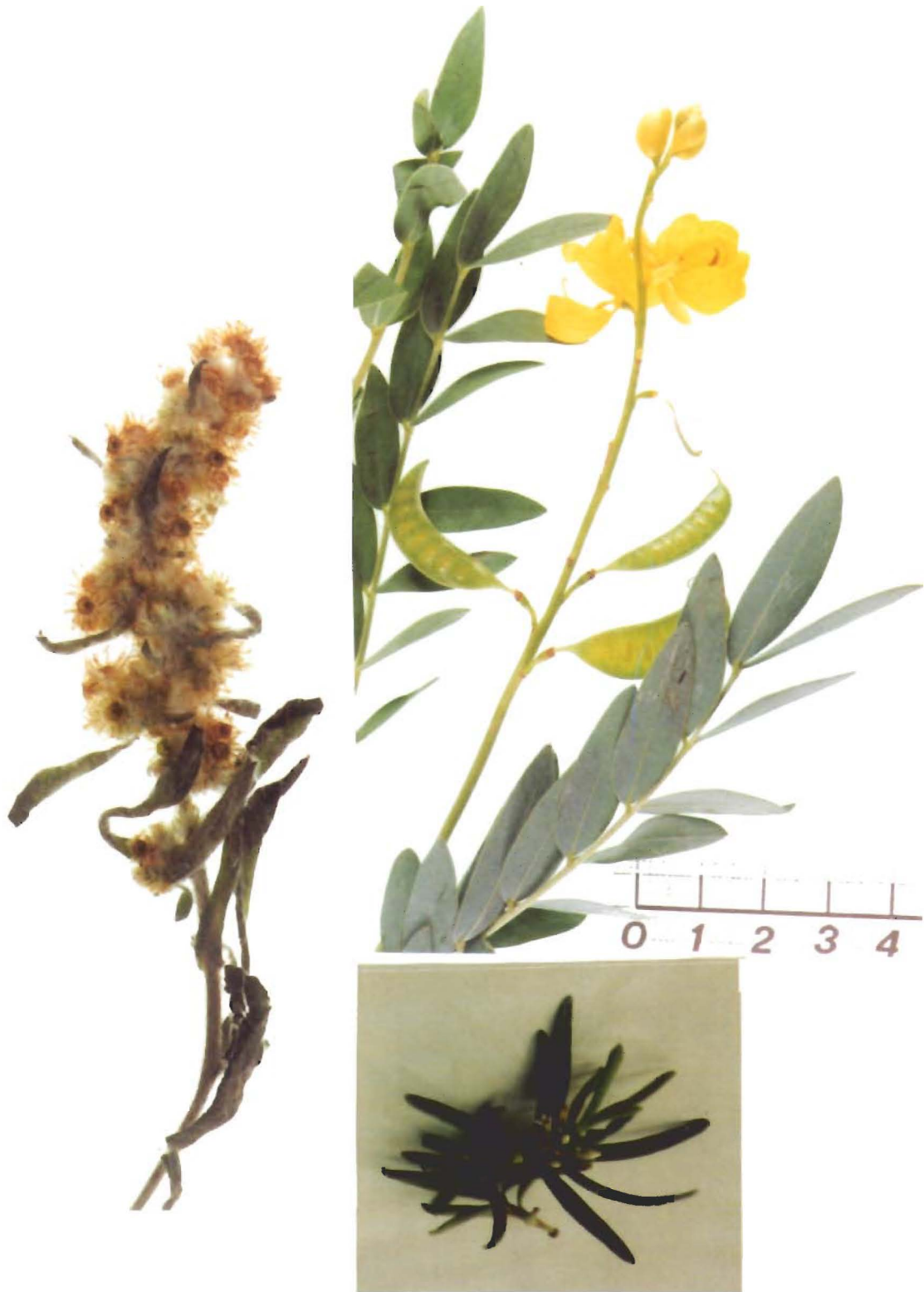


Plate 4. a. *Cassia senna*, b. *Enicostema axillare*, c. *Gnaphalium luteo-album*.





Plate 5. a. *Silene conica*, b. *Lepidium sativum*, c. *Cuscuta pentagona*.



Plate 6. a. *Torilis nodosa*, b. *Datura innoxia*, c. *Coronopus didymus*.