

**New Records of the Flora of
the United Arab Emirates
(Part 3)**

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ABSTRACT. Recent extensive floristic collections from U.A.E. especially the Al-Ain, Dhaid and Hatta districts in the east of the country, revealed the presence of 10 new taxa of the Flora of U.A.E.

These are: *Alternanthera pungens* (Amaranthaceae), *Ogastemma pusillum* (Boraginaceae), *Lepidium sativum* (Brassicaceae), *Cleome viscosa* (Capparidaceae), *Euphorbia dracunculoides*, *Euphorbia falcata*, *Euphorbia helioscopia* (Euphorbiaceae), *Malva nicaeensis* (Malvaceae), *Lolium persicum* (Poaceae), *Portulaca quadrifida* (Portulacaceae).

This study is based on collections made during many visits to the eastern region of the United Arab Emirates, bordering the Sultanate of Oman (Fig. 1). This area does not seem to have been well explored botanically and the author was fortunate enough to make a record in 1990-1991 of many new taxa of flora there, well known however, in the mediterranean region and some other parts of the world.

Topographically the area comprises oasis plains, sand dunes, wadis and mountains. The wadis of Hatta region mostly crossing seamount Ophiolite of possible middle Cretaceous age volcanics, metamorphic rocks and metasediments.

The climate of this region is characterised by low rainfalls and high temperatures; the mean annual rainfall being 70-150 mm in January, the mean maximum air temperature 43.6 °C in June while the mean minimum air temperature is 8.5 °C in January and the mean annual relative humidity is over 70%.

The assessment of the "new records" is based on "Flora of United Arab Emirates: An Introduction" (Western 1989), "The Living Desert" (Jongbloed 1987) and other Floras of the adjacent countries, e.g. Flora of Saudi Arabia (Migahid 1978), Flora of Iraq (Townsend and Guest 1974-1980) and Ecology and Flora of Qatar (Batanouny 1981).

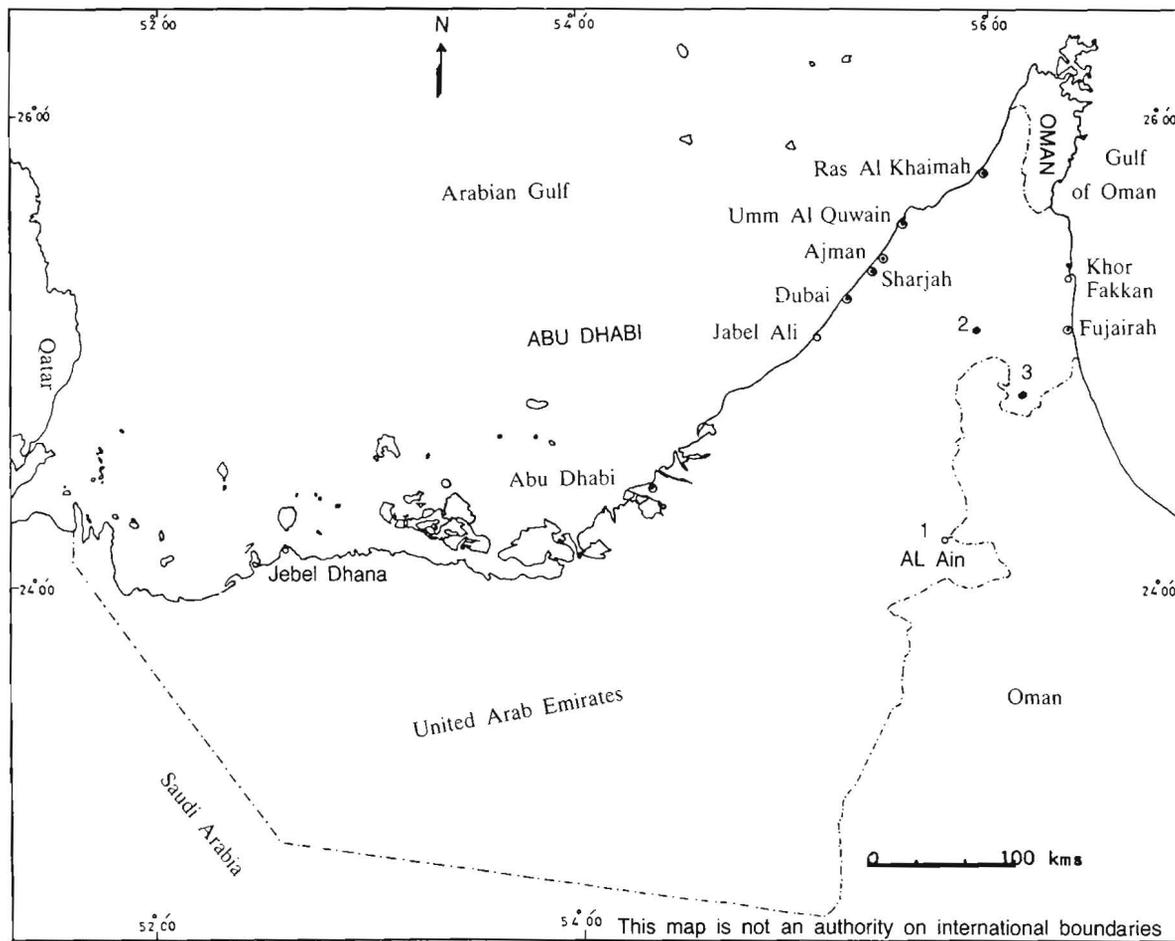


Fig. 1. United Arab Emirates Map Showing: Three Districts: 1. Al-Ain, 2. Dhaid, 4. Hatta.

Specimens were deposited in the National Herbarium of United Arab Emirates University, The Desert and Marine Environment Research Centre in Al-Ain, (UAEUH) and duplicates were delivered to the Herbarium of the Royal Botanic Gardens in Edinburgh (E).

The following is an alphabetical list of the species indicated as "new" in the flora of the United Arab Emirates. The abbreviations used in the text are:

fr. = fruiting specimen
fl. = flowering specimen

Amaranthaceae

Alternanthera pungens Kunth.

Syn: *A. repens* (L.) Link, *Achyranthes repens* L.

General distribution:

Tropical American plant, widespread as a weed in the Mediterranean countries, throughout the old world and other warm countries e.g. India, Iran, Iraq, Saudi Arabia and Oman (Chaudhary and Akram 1987 and Miller and Morris 1988).

Local distribution:

(fl.) Mid-way between Jebal Al-Faya to Dhaid road, 280 m, on road side farm, 12-3-1990, F.M. Karim 4332.

Boraginaceae

Ogastemma pusillum (Coss. et Dur. ex Bonnet & Barratte) Brummitt.

Syn: *Megastoma pusillum* Coss. et Dur. ex Bonnet & Barratte

General distribution:

Palestine (Zohary 1973), Jordan (Al-Eisawi 1982), Morocco, Algeria, Tunisia, Libya (Ozenda 1977), Saudi Arabia (Collenette 1985), Oman (Miller and Morris 1988).

Local distribution:

Very rare in UAE (fl. & fr.). Hatta, 400 M, on hill side, 14-3-1990, F.M. Karim 8153.

Brassicaceae

Lepidium sativum L.

General distribution:

Europe, Cyprus, Syria, Lebanon, Palestine, Iraq, Egypt, Saudi Arabia Kuwait, Turkey, Caucasus, Iran, Pakistan, Afghanistan, Central Asia (Turkmenia). Throughout most of the north temperate regions of the world, exact native area obscure (Townsend and Guest 1974-1980). Also found in Jordan (Al-Eisawi 1982).

Local distribution:

(fl. & fr.) Al-Ain District 340 m, Al-Maquum farm on road side, 13-3-1990, F.M. Karim 4713.

Capparidaceae

Cleome viscosa L.

Syn.: *C. icosandra* L.

General distribution

Iraq, Egypt, Saudi Arabia, Pakistan, Afghanistan, India, Burma, Malaysia, Polynesia, North Australia, Tropical Africa, Mascarene Isles: widespread in the tropics of the Old World and also in the West Indies. (Townsend and Guest 1974-1980). Also found in Iran-Kerman, (Iranian Herbarium specimen No..., 28-7-1968, duplicate in (E).

Local distribution:

Very rare in UAE. (fr.) Al-Ain District 350 m, Saruje farm on road side, 10-6-1990, F.M. Karim 4601.

Euphorbiaceae

Euphorbia dracunculoides Lam.

General distribution:

S.W. Europe (Spain), Egypt, Kuwait, Iraq, Saudi Arabia, Oman, Yemen, Pakistan, Afghanistan, India, North Africa (Morocco-Libya), Tropical Africa (Sudan, Somalia), (Townsend and Guest 1974-1980).

Local distribution:

(fl. & fr.). Al-Ain District, Saruje, 350 m, in the farm, 2-4-1990, F.M. Karim 1789.

Euphorbia falcata L. (Fig. 2)

Syn: *E. falcata* L. var. *ecornuta* Boiss., *E. falcata* L. var. *rubra* (Cav.) Boiss., *E. rubra* Cav.

General distribution:

Central and Southern Europe (France, Spain and Portugal to Germany, Poland and West Russia, (Zechoslovakia to Italy, Yugoslavia and Greece), Crete, Aegean Isles, Cyprus, Syria, Lebanon, Palestine, Jordan, Iraq, Egypt, Saudi Arabia, Turkey, Caucasus, Iran, Pakistan Afghanistan, Central Asia (Turkmenia), North Africa (Morocco, Algeria, Libya), (Townsend and Guest 1974-1980).

Local distribution:

(fl. & fr.). Al-Ain District, Al-mouwgai 350 m, in the farm, 3-3-1991, F.M. Karim 6613.

Euphorbia helioscopia L.

[*E. cf. oxyodonta* (non Boiss. & Hausskn.) Standley in Publ. Field Mus. Nat. Hist. 469, Anthrop. Ser 30:175 (1940).]

General distribution:

Almost throughout Europe, Cyprus, Aegean Isles, Syria, Lebanon, Palestine, Jordan, Egypt, Saudi Arabia, Kuwait, Iraq, Turkey, Caucasus, Iran, Pakistan, Afghanistan, North India, China, Japan, Central Asia, Macaronesia (Maderia, Teneriffe) North Africa (Morocco, Algeria, Libya). Introduced into North America and other parts of the world, (Townsend and Guest 1974-1980).

Local distribution:

(fl.) Al-Ain District, Al-Saruje 350 m, in the farm on road side, 28-4-1990, F.M. Karim 4587.

Malvaceae*Malva nicaeensis* All (Fig. 3)

[*M. flexuosa* (non Hornem.) I. Riedl in Fl. Iran, 120:22 (1976), quoad pl. Iraq.].

[*M. rotundifolia* (non L.) I. Riedl in Fl. Iran. 120:26 (1976), Saltem quoad pl. Iraq.]

General distribution:

Mediterranean Europe (Portugal and Spain to Italy, Greece, Crimea), Aegean Isles, Cyprus, Syria, Lebanon, Palestine, Jordan, Iraq, Egypt, Saudi Arabia, Turkey, Caucasus, Iran, Central Asia (Transcapia), North Africa (Morocco, Algeria),

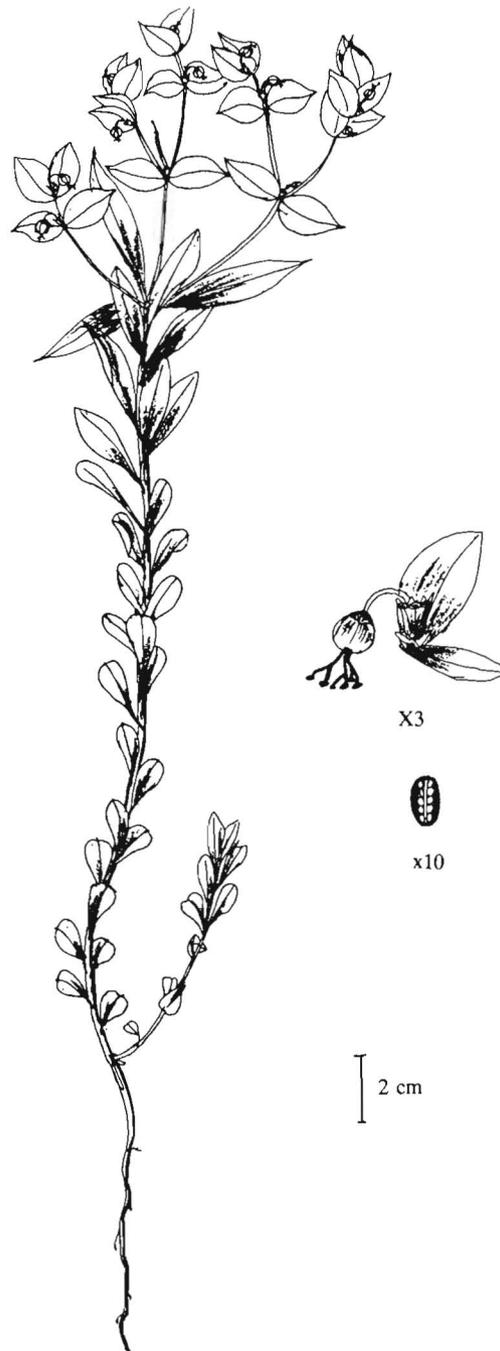


Fig. 2. *Euphorbia falcata*.

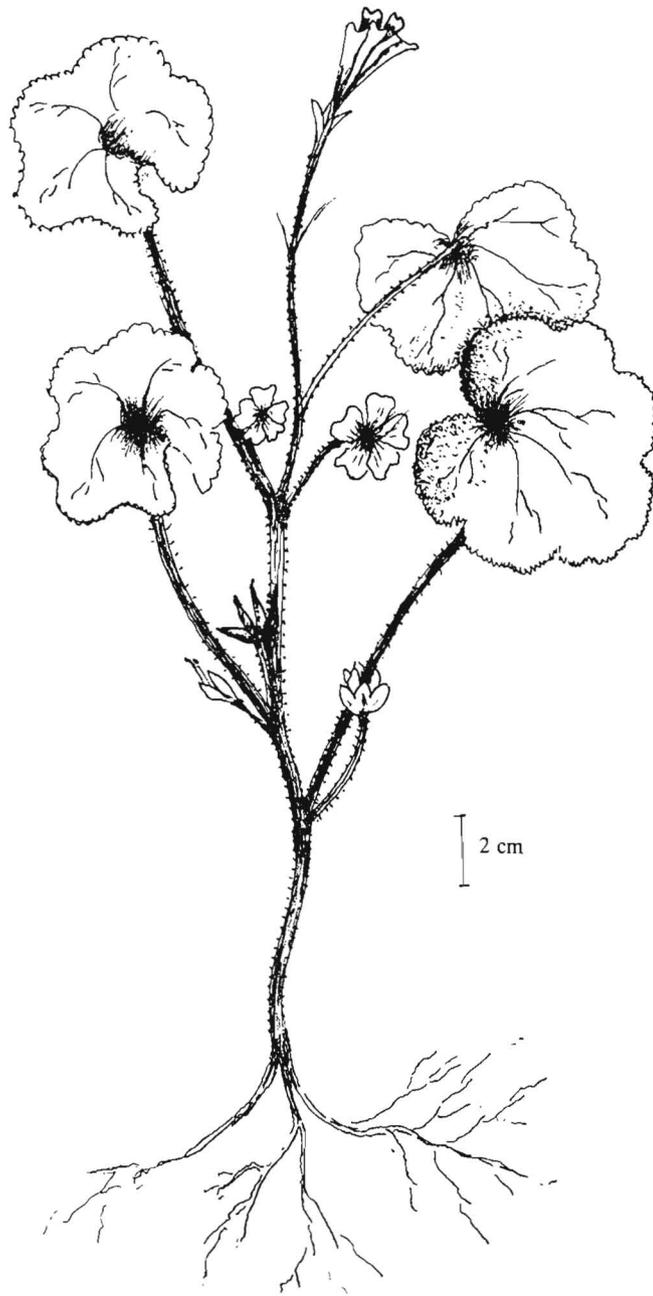


Fig. 3. *Malva nicaensis*.

Macaronesia (Madeira, Canary, Azores). (Townsend and Guest 1974-1980), also found in Qatar (Batanouny 1981).

Local distribution:

(fl. & fr.). Hatta 480 m, on road side farm 12-3-1990, F.M. Karim 2772.

Poaceae

Lolium persicum Boiss. et Hoh. ex Boiss.

General distribution:

Iraq, Palestine, Turkey, Caucasus, Iran, Pakistan, Afghanistan, Central Asia (Turkmenia to Tian Shan): introduced into North America recently as an impurity in wheat according to Hubbard (1954) - into Britain (Bor 1968), also found in Saudi Arabia (Chaudhary 1989).

Local distribution:

(fl.). Dhaid 280 m, on road side farm, 22-2-1990, F.M. Karim 2191.

Portulacaceae

Portulaca quadrifida L.

Syn.: *P. linifolia* Forssk, *P. meridiana* L.

General distribution:

Widespread in warm countries as a weed in Tropical Africa, Egypt, India (N.W. Rajasthan U.P.), Pakistan (Sind), (Abdul Ghafoor 1973) also found in Saudi Arabia, (Migahid 1978). Bahrain (Cornes and Cornes 1989).

Local distribution:

(fl.). Al-Ain District 350 m, Hilli park on road side, 10-10-1990, F.M. Karim 6715.

Acknowledgements

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بعض أنواع النباتات التي وجدت حديثاً في فلورة دولة الامارات العربية المتحدة

فوزي محمد كريم

مركز بحوث الصحراء والبيئة البحرية - جامعة الامارات العربية المتحدة
العين - ص.ب ١٧٧٧٧ - دولة الامارات العربية المتحدة

ان المسح الميداني لنباتات دولة الامارات العربية المتحدة لا زال مستمر لحد الآن ويقوم به المعشب الوطني (التابع لمركز بحوث الصحراء والبيئة البحرية، جامعة الامارات) حيث يشمل المسح على جمع نماذج نباتية مختلفة من جميع مناطق الدولة وذلك لمعرفة وحصر جميع الأنواع النباتية البرية المتواجدة على أرض دولة الامارات ومن ثم تعريفها وتقسيمها إلى العوائل والأجناس التي تعود إليها وحفظها في فايلات خاصة توضع في خزائن المعشب، فقد تمت عدة زيارات ميدانية وخاصة في فصل الربيع في الفترة (١٩٩٠ - ١٩٩١م) إلى أماكن مختلفة من مناطق العين، الذيد، حتا وهذه واقعة في الجهة الشرقية والشمالية الشرقية من دولة الامارات ومحاذية لحدود سلطنة عُمان (شكل ١).

وتتمتع هذه المناطق بطوبوغرافية متميزة، حيث سلسلة جبل حفيت وجبال العوهة في منطقة العين وجبال الفايا القريبة من منطقة الذيد وكذلك جبال الروضة الرسوبية القريبة من منطقة حتا ويتخلل هذه المناطق وديان وسهول ذات تربة خصبة وأراضي زراعية جيدة، وان نسبة الرطوبة والأمطار مناسبة لنمو الغطاء النباتي بصورة متفاوتة، والطقس بصورة عامة بارد شتاء وحار جداً صيفاً.

تم التعرف على عشرة أنواع جديدة من النباتات البرية المختلفة والتي لم تكن مجموعة أو معروفة أو مسجلة سابقاً في فلورة دولة الامارات العربية المتحدة وهذه الأنواع تعود إلى ثمانية عوائل نباتية مختلفة. ونماذج من هذه الأنواع النباتية محفوظة في المعشب الوطني التابع للمركز وهي :

اسم النبات العلمي	الاسم المحلي	اسم العائلة
<i>Alternanthera pungens</i>	ورد أم أصفر، أنتاب	عرف الديك
<i>Ogastemma pusillum</i>	قناديل	لسان الثور، الحمحمية
<i>Cleome viscosa</i>	أم صنيف، شجرة الوحش	القبارية، اللصفية
<i>Lepidium sativum</i>	رشاد	الصلبية
<i>Euphorbia spp.</i>	أم الحليب، خنيز، لبينة	اللبنية، السوسبية
<i>Lolium persicum</i>	رويطة، هيبان	نجيلية
<i>Malva nicaeensis</i>	خبيزة	خبازية
<i>Portulaca quadrifida</i>	نجلة، رجلة، أرنبه	البربينية، الفرفحنيه