

JCA

Trip No 11

Morocco

JCA4300 – 4704 also ABS4300 - 4704

25th April - 7th May 1982

This trip was undertaken in the company of John Blanchard and Michael Salmon. The field numbers can be used with both JCA and ABS prefixes.

25 APRIL, 1982 : LOCALITY N° 1

FIELD COLL N°		AREA LOCALITY →		ALTITUDE	HABITAT : GENERAL NOTES	OTHER NOTES
4300	<i>Romulea</i>	Jangier	North of Aeilah	—	{ Coastal maquis of <i> Pistacia</i> and other low scrub ; sandy soil	Not in flower *
4301	<i>Narcissus ? elegans</i>	"	"	"		" *
4302	<i>Urginea</i>	"	"	"		" *
4303	<i>Scorzonera</i>	"	"	"		Pink ; tuberos *
4304	<i>Narcissus serotinus</i>	"	"	"		Not in flower *
4305	<i>Bellevalia</i>	"	"	"		" *
4306	"	"	"	"		" *
4307	<i>Crocus</i>	"	"	"		<i>C. sativus</i> type corn *
4308	? <i>Dipcadi / Ornithogalum</i>	"	"	"		Not in flower *
4309	<i>Scilla</i>	"	"	"		" *
4310	[Mixed bulbs ex ploughed land]	"	"	"	" *	

25 APRIL, 1982 : LOCALITY N° 2

4311	<i>Dipcadi serotinum</i>	N.W. Morocco	North of	150 m.	Recently disturbed sandy soil, adjacent to Eucalyptus plantation	Pale orange-pink & green flowers *
4312	<i>Asphodelus</i>		Souk-el-Arba			Not in flower *

26 APRIL, 1982 : LOCALITY N° 3

4313	<i>Romulea</i>	Middle Atlas	{ Djebel Helmi plateau, above Ifrane ; north-west of Mischiffen	1,800 m.	Open slopes and ridges of various aspects ; stony soils	Not in flower *		
4314	<i>Colchicum</i>			"		"	"	" *
4315	<i>Romulea ? linariae</i>			"		"	"	black corn tunic Violet flowers ; yellow throat *
4316	<i>Colchicum</i>			"		"	"	Not in flower *
4317	<i>Romulea</i>			"		"	"	" ; reddish tunic *
4318	<i>Lilipa australis</i>			"		"	"	" *
4319	<i>Gagea</i>			"		"	"	Yellow *
4320	<i>Asphodelus acaulis</i>			"		"	"	Not in flower *
4321	<i>Artemisia</i>			"		"	"	Very dwarf *
4322	Botaginaceae			"		"	"	Blue ; low shrub *
4323	<i>Ranunculus demissus</i>	"	"	"	Yellow ; tuberos ; dissected *			

26 APRIL, 1982 : LOCALITY N° 3

4324	<i>Crocus</i>	Middle Atlas	Djebel Habri	1,800 m	Stony soil on open ridges	Not in flower
4325	<i>Gagea</i>	"	plateau, ^{above} the of	"	"	"
4326	<i>Crocus</i>	"	Ifrane; NW of	"	Clearings in cedar forest	"
4327	<i>Julipa</i>	"	Mischliffen	"	"	"
4328	<i>Daphne laureola latifolia</i>	"	"	"	"	-
4329	<i>Ranunculus</i>	"	"	"	Among rocks and in woodland	Yellow; pubescent palmate lvs
4330	<i>Carduncellus thaponticoides</i>	"	"	"	Open areas; usually in turf	Not in flower
4331	<i>Anemone</i>	"	"	"	Open slopes; sandy and gravelly soils	Blue; prostrate.
4332	Compositae	"	"	"	Open, stony areas	Sessile cream heads
4333	<i>Saxifraga</i>	"	"	"	In crevices among rocks in shade	Dactyloides Sect.
4334	<i>Draba lutescens</i>	"	"	"	Crevices on exposed slopes	In fruit
4335	<i>Matthiola</i>	"	"	"	"	Bright carmine pink
4336	<i>Paeonia coriacea atlantica</i>	"	"	"	In shade in cedar forest	Not in flower
4337	<i>Scilla algeriensis</i>	"	"	"	" ~ limestone pockets	"
4338	<i>Colchicum</i>	"	"	"	Open areas	"
4339	<i>Allium</i>	"	"	"	"	"
4340	-	"	"	"	"	Bulbous "
4341	<i>Urnithogalum</i>	"	"	"	Turfy clearings in cedar forest	Not in flower
4342	<i>Romulea</i>	"	"	"	"	"
4343	<i>Gagea</i>	"	"	"	"	"
4344	<i>Romulea</i>	"	"	"	Open slopes ~ various aspects	"
4345	<i>Urnithogalum</i>	"	"	"	"	Prostrate foliage; not in flower
4346	<i>Gagea</i>	"	"	"	"	"
4347	<i>Colchicum</i>	"	"	"	"	"
4348	<i>Urnithogalum</i>	"	"	"	"	Elongated bulbs; "
4349	<i>Crocus</i>	"	"	"	"	Parallel fibres; "
4350	"	"	"	"	"	Entire (not fibrous) tunic "

27 APRIL : LOCALITY N° 4

4351	<i>Romulea</i>	"	Above Ifrane	1,700 m.		
4352	<i>Colchicum</i>	"	"	"		
4353	<i>Colchicum</i>	"	"	"	Turfy areas among limestone	Not in flower

27 APRIL, 1982 : LOCALITY N° 4

Number	Species	Location	Altitude	Soil/Environment	Notes	
4354	<i>Ornithogalum</i>	Middle Atlas	above Ifrane	1,700 m	Heavy red clay among limestone outcrops	Not in flower
4355	<i>Ranunculus</i>	"	"	"	"	"
4356	<i>Bianum</i>	"	"	"	"	"
4357	<i>Muscari grandifolium populum</i>	"	"	"	"	Dark blue from china-blue bud
4358	<i>Crocus</i>	"	"	"	"	Not in flower
4359	<i>Gagea</i>	"	"	"	"	"
4360	<i>Romulea</i>	"	"	"	"	"
4361	<i>Ajuga</i>	"	"	"	"	Prostrate stems; bright yellow
4362	<i>Colchicum</i>	"	"	"	"	large
4363	<i>Romulea</i>	"	"	"	"	Large; several flowers.
4364	<i>Armeria</i>	"	"	"	"	Not in flower
4365	<i>Narcissus</i>	"	"	"	Moist loam in turf; open depressions	MS coll. Not in flower
4366	<i>Ornithogalum</i>	"	"	"	"	"
4367	<i>Gagea</i>	"	"	"	"	Yellow.
4368	<i>Leopoldia</i>	"	"	"	Restricted to clay-filled 'dolines'	Not in flower
4369	<i>Naphodebus</i>	"	"	"	Upper slopes over limestone	"
4370	<i>Ranunculus demissus</i>	"	"	"	"	Yellow
4371	<i>Aphyllanthes monapeliensis</i>	"	"	"	"	Not in flower
4372	<i>Vicia</i>	"	"	"	Stony clay at edge of woodland.	Rich blue-purple; local
4373	<i>Ranunculus calandriniaoides</i>	"	"	"	Sandy ledges on limestone steps	"
4374	<i>Romulea</i>	"	"	"	"	Large; in seed
4375	<i>Sabatia</i>	"	"	"	"	Woolly, white mats
4376	<i>Ornithogalum</i>	"	"	"	"	"
4377	<i>Narcissus bulbocodium romieuxii</i>	"	"	"	{ ledges & pockets of leaf-soil in mixed } woodland	Not in flower.
4378	<i>Ornithogalum</i>	/4378A	<i>Romulea</i>	"	"	"
4379	<i>Anthericum</i>	/4379A	<i>Orchis</i>	"	{ Stony clay; wet flush with running water } "	"
4380	<i>Narcissus</i>	"	"	"	"	"
4381	<i>Iris planifolia</i>	"	"	"	{ Sheltered, S-facing slope against } woodland; limestone	"
4382	<i>Narcissus Leucogium autumnale pulchellum.</i>	"	"	"	"	"

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4383	<i>Sarcocapnos crassifolia</i>	Middle Atlas	SW of Ain el Leuh	000 m.	Exposed moorland : fissures on aegle rocks	White ; extremely local	
4384	<i>Narcissus</i> 4384A <i>Allium</i> (with 4384)	"		"	"	Pockets of leafsoil on top of aegle rocks	Not in flower
4385	Umbelliferae	"		"	"	Shady places among stones	"
4386	<i>Ornithogalum</i>	"		"	"	In running water	"
4387	Liliaceae	"		"	"	Leafsoil among evergreen oaks	In fruit
4388	<i>Urginea</i>	"		"	"	Exposed moorland ; open sites	Not in flower ; undulate lvs.
4389	<i>Bellevalia</i>	"		"	"	"	" ; scarce
4390	<i>Paeonia coriacea</i>	"		"	"	Clearings in cedar forest.	Pink to red
4391	<i>Polygonatum</i>	"		"	"	Dense shade in cedar forest	Not in flower.
4392	<i>Anthericum</i>	"		"	"	Light shade among evergreen oak	"
4393	<i>Aristolochia longa</i> subsp. <i>paucimervis</i>	"	"	"	Stony places on open slopes	Greenish yellow ; tuberous	
4394	<i>Narcissus leucogium</i>	"	Between Khenifra & Kaiba	750 m.	Crumbling schist slope with <i>Savandula stoechas</i>	Not in flower ; wet sites	
4395	? <i>Scilla</i>	"		"	"	"	" ; "
4396	<i>Urginea</i>	"		"	"	"	" ; dry places
4397	<i>Romulea</i>	"		"	"	"	" ; "
4398	<i>Scilla</i>	"		"	"	"	"
4399	<i>Convolvulus</i>	"		"	"	"	Pink ; tuberous
4400	<i>Ornithogalum</i>	"		"	"	"	Not in flower ; wet places.
4401	<i>Bellevalia</i>	"		"	"	"	"
4402	<i>Scilla</i>	"		"	"	"	"
4403	<i>Anisatum</i>	"		"	"	"	" ; scarce
4404	<i>Dipicadi</i>	"		"	"	"	"
4405	<i>Scilla</i>	"		"	"	"	"
4406	<i>Biatum</i>	"		"	"	"	" ; scarce.

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4407	<i>Leucyium autumnale</i>	630.201	Middle Atlas	N. of	1200 m.	South-facing limestone slope.	Bulb ~ not in flower
4408	<i>Scilla</i>	"	"	Ksar el-Ksiba	"	"	"
4409	<i>Muscari</i>	"	"	"	"	"	"
4410	<i>Dipradi</i>	"	"	"	"	"	"
4411	<i>Romulea</i>	"	"	"	"	"	"
4412	<i>Narcissus bulbocodium</i>	"	"	"	"	"	[possibly same as 4427]
4413	<i>Iris xiphium</i>	"	"	"	"	"	"

cult. JWS.

4414	<i>Narcissus marvieri</i>	"	"	Tizi-n-Ait Quitta South of Ksiba	1700 m	N. facing slope in select oak & cedar association	Not in flower
4415	<i>Crocus</i>	"	"		"	"	"
4416	<i>Anagallis monelli</i>	"	"	"	1500 m.	Sunny, dry clay banks & rock crevices	Orange-red; shrubby; 15cm
4417	<i>Iris xiphium</i>	"	"	"	"	Open slopes and among scrub	Blue-violet.
4418	<i>Ophrys atlantica</i>	"	"	"	"	Moist clay loam among turf	"
4419	<i>Ophrys tenthredinifera</i>	"	"	"	"	"	"
4420	<i>Orchis</i>	"	"	"	"	Wet clay on open slope	Not in flower
4421	<i>Romulea</i>	"	"	"	"	"	"
4422	<i>Colchicum</i>	"	"	"	"	"	"
4423	<i>Aceras</i>	"	"	"	"	Light shade among scrub	"

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4424	<i>Romulea</i>		Middle Atlas	N of Ksiba	1200 m.	Leafmould-filled pockets on limestone	Not in flower
4425			"	"	"	"	"
4426			"	"	"	"	"
4427	<i>Narcissus bulbocodium</i>		"	"	"	"	[possibly = 4412]
4428			"	"	"	"	Not in flower.
4429	<i>Pteridophyta</i>		"	"	"	"	"
4429A	"		"	"	"	"	"

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		Middle Atlas	above Afouer	1000 m.	Exposed limestone slope; thin clay soil	
4430	Campanula	"	"	"	"	Violet-blue; annual
4431	Lychnis	"	"	"	"	Pink; annual.
4432						(Compositae)
4433	Chrysanthemum coronarium	"	"	"	"	Lemon-yellow; annual
4434						(Leguminosae)
4435	Linaria	"	"	"	"	Pale-yellow; annual
4436	Linaria	"	"	"	"	Yellow; annual
4437	Convolvulus	"	"	"	"	Yellow; annual
4438	Plantago	"	"	"	"	Violet; annual
4439						(Malvaceae)
4440	Scrophularia	"	"	"	"	Pinkish; annual
4441	Valeriana	"	"	"	"	Annual
4442		"	"	"	"	Pale pink; annual
4443	Ornithogalum	"	"	"	"	Raddish-brown; perennial
4444	Narcissus serotinus	"	"	"	"	Pink; annual
4445	Colinus Scopolia	"	"	"	"	Orange-yellow; annual.
4446		"	"	"	"	Not in flower; 1 only
4447	Gynandrisis susjinchium	"	"	"	"	Not in flower
4448	Cheilanthes	"		1500 m.	Steep North-facing slope; among oak & pistacia.	Violet-blue.
4449		"	{ above Afouer	"	"	Not in flower
4450	Narcissus bulbosodium	"	{ towards Bin-el-	"	"	"
4451	Crocus	"	{ Ouidane dam	"	"	"
4452	Ophrys apifera	"	"	"	"	"
4453	Polygala	"	"	"	"	Pink & white forms.
4454	Geranium malviflorum	"	"	"	Dry, vertical rock crevices	Red-purple & yellow; 80 cm.
4455	Brasim	"	"	"	Cultivated corn fields and margins	Blue-purple; tuberous
4456	Ophrys tenthredinifera	"	"	"	{ Evergreen oak-scrub; among stones and	Round-leaved; not in flower
4457	" lutea	"	"	"	{ under scrub; leafy soil over limestone }	"

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4458	Silene		Middle Atlas	Oujdal - Demnate road (508)	800 m.	{ Limestone hills with granite capping; } { in reddish clay soils }	Greenish-white; open in evening
4459		(Malvaceae)	"	"	"		"
4460		(Compositae)	"	"	"	"	Yellow; annual.
4461	Convolvulus		"	"	"	"	Pink; perennial
4462		(Compositae)	"	"	"	"	Yellow; annual
4463		(Compositae)	"	"	"	"	Deep yellow; annual.
4464		(Compositae)	"	"	"	"	Cream; annual
4465	Papaver		"	"	"	"	Purple; annual
4466	Linaria		"	"	"	"	Yellow; perennial
4467		(Leguminosae)	"	"	"	"	Deep violet; perennial
4468	Campanula		"	"	"	"	Violet; perennial.
4469		(Labiatae)	"	"	"	"	Gunson; shrubby perennial
4470	Helianthemum		"	"	"	"	Pink; shrubby perennial
4471	Savandula		"	"	"	"	Purple-blue; shrubby.
4472	Echium		"	"	"	"	Red to violet; annual
4473	Fagonia	(Cappariaceae)	"	"	"	"	Pink; prostrate; perennial
4474	Nigella		"	"	"	"	Greenish white; annual
4475	Papaver		"	"	"	"	Red
4476	Reseda		"	"	"	"	Greenish-white; annual
4477	Campanula		"	"	"	"	Pale blue; perennial
4478	Euphorbia		"	"	"	"	Annual
4479	Roemeria		"	"	"	"	Orange-red; annual
4480		(Caryophyllaceae)	"	"	"	"	Pink; annual.
4481	Scotymena		"	N. of Demnate	900 m.	{ Red sandstone hills; open, dry sites } { Association with Euphorbia resinifera }	Pink
4482	Uzinea		"	"	"		"
4483	Bellevalia		"	"	"	"	White from brownish buds.
4484	Androcymbium		"	"	"	"	White.
4485		(Compositae)	"	"	"	"	Spiny shrub; yellow heads
4483A		(Urobanchaceae)	"	"	"	"	Entire plant reddish; rare
4484A		(Liliaceae)	"	"	"	"	Not in flower

1 MAY, 1982

Number	Species	Family	Location	Altitude	Environment	Flower Color / Notes	
4485	<i>Scorzonera</i>		High Atlas				
4487	<i>Iris (xiphium) tingitana</i>		"	Below Izi-n-Tichka	1000 m	Sandy soil at margins of coniferous woodland	Pale-pink ; not tuberous
4488	Gramineae		"	"	"	"	Violet-blue .
4489	<i>Gynandis sisymbrium</i>		"	"	"	"	Violet
4490	<i>Scorzonera</i>		"	"	"	"	Pink ; tuberous ; toothed l
4491	"		"	"	"	"	" ; " ; linear l
4492	<i>Gagea</i>		"	"	1500 m.	Crevices on north-facing cliffs ; volcanic rock	Not in flower
4493	<i>Colchicum</i>		High Atlas	Izi-n-Tichka	2200 m	In wet turf by stream ; acid silt	"
4494	<i>Ornithogalum</i>		"	"	"	"	"
4495	<i>Ranuncula</i>		"	"	"	"	"
4496	Orchidaceae		"	"	"	"	" ; round tubers
4497	<i>Ranunculus</i>		"	"	"	"	Yellow ; perennial
4498		(Cruciferae)	"	"	"	Dry slopes of crumbling schist .	Cream , perennial
4499	<i>Leucanthemum</i>		"	"	"	"	White rays ; basally red .
4500	<i>Alyssum</i>		"	"	"	"	Yellow , perennial
4501		(Boraginaceae)	"	"	"	"	Blue ; annual
4502	<i>Saxifraga granulata</i>		"	"	"	"	White ; perennial
4503		(Compositae)	"	"	"	"	Discoid ; shrubby perennial
4504	<i>Anthyllis</i>		"	"	"	"	Purple-red
4505		(Boraginaceae)	"	"	"	"	Pale-blue
4506		(Pteridophyta)	"	"	"	"	-
4507	<i>Reseda</i>		"	"	"	"	Reddish , perennial
4508	<i>Stachys</i>		"	"	"	"	White .
4509		(Scrophulariaceae)	"	"	"	"	Yellowish .
4510	<i>Fritillaria</i>		"	"	"	Among <i>Bupleurum spinosum</i> on steep gully-side ; wet , disintegrated schist .	Dark mahogany flowers .

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4511	<i>Scilla hispanica</i>		High Atlas	{ Above Dizi-n. - Tichka }	2,300 m.	Mainly moist or shaded sites on rocky slopes	Blue	
4512	<i>Colchicum</i>		"	"	"	"	Not in flower	
4513	<i>Romulea</i>		"	"	"	"	Pale violet; white throat	
4514	<i>Narcissus watieri</i>		"	"	"	"	White	
4515	<i>Gagea</i>		"	"	"	"	Yellow	
4516			"	"	"	"	Yellow	
4517	<i>Fritillaria</i>		"	"	2,500 m.	Shady, rocky sites.	Brownish purple.	
4518	<i>Narcissus watieri</i>		"	{ Djebel bou Chiroul above Dizi-n. Tichka }	3,000 m.	Moist ground at edges of melting snow	White	MS.
4519	<i>Narcissus watieri bulbocodium</i>		"	"	"	"	Yellow.	MS
4520	<i>Anthericum</i>		"	"	"	"	Not in flower	MS
4521	<i>Colchicum ? triphyllum</i>		"	"	"	"	"	MS
4522	? <i>Mesendeta</i>		"	"	"	"	"	MS
4523	Tha	(Cruciferae)	"	"	2,500 m	Rock crevices	Yellow.	
4524	<i>Sempervivum atlanticum</i>		"	"	"	"	Very local; not in flower main coll. (JCA)	
4525	<i>Narcissus bulbocodium</i>		"	Dizi-n. Tichka	2000 m.	In moist turf; clay loam.	Yellow; selections (JWB)	
4526	<i>Romulea</i>		"	"	"	"	Lower altitude habitats (JCA)	
4527	<i>Ornithogalum</i>		"	"	"	"	White; green stripe	
4528		(Leguminosae)	"	"	"	Rock crevices	Yellow; caespitose	
4529	<i>Silene</i>		"	"	"	"	White; perennial	
4530	<i>Gyiza</i>		"	"	"	Dryish, stony sites	Yellow;	
4531		(Compositae)	"	"	"	"	Pink; sessile; perennial	
4532	<i>Salvia</i>		"	"	"	"	Violet; perennial	
4533	<i>Inaculus</i>		"	"	"	"	"	
4534		(Compositae)	"	"	"	"	"	
4535	(<i>Leucanthemum</i>)		"	"	"	"	"	
4536	<i>Cerinth</i>		"	"	"	Moist places near stream	Yellow; woody base Cream & purple	
4537	<i>Bellis</i>		"	"	"	"	White	
4538			"	"	"	"	Pale blue	
4539	<i>Orchis</i>		"	"	"	"	Red-purple	
4540	<i>Anthyllis</i>		"	"	"	Dryish stony sites	"	
4541	<i>Erysimum ? bocconei</i>		"	"	"	"	Yellow	

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4542		(Cruciferae)	High Atlas	Jajj n. Tachka	2000 m	Dryish, stony sites; volcanic rock	Yellow
4543		(")	"	"	"	"	"
4544	<i>Diarrhena</i>		"	"	"	"	"
4545	<i>Diaba hispanica</i>		"	"	"	"	"
4546	<i>Lygia</i>		"	"	"	"	Yellow; perennial
4547	<i>Colchicum</i>		"	"	"	"	Not in flower
4548			"	"	"	"	Annual
4549		(Compositae)	"	"	"	"	Shrubby; perennial
4550		(Leguminosae)	"	"	"	"	Red-purple; perennial
4551		{ " }	"	"	"	"	Yellow; annual
4552		{ " }	"	"	"	"	Yellow; perennial
4553		(Leguminosae)	High Atlas	{ between Anni	1000 m.	{ Open East-facing slopes; stony clay soils over red sandstone. Among sparse scrub of <i>Lygos</i> , <i>Ephedra</i> , <i>Teucrium fruticosum</i> , <i>Lavandula</i> spp., <i>Chamaecyparis</i> , etc.	Yellow
4554	<i>Lavandula</i>		"	{ and Moulay	"		Blue
4555	<i>Asphodelus</i>		"	Brachm	"		Pinkish white
4556		(Leguminosae)	"	"	"		Yellow
4557	<i>Ononis</i>		"	"	"		Pink & white
4558		(Leguminosae)	"	"	"		Purple
4559	<i>Lavandula</i>		"	"	"		Blue-violet
4560	<i>Thymus</i>		"	"	"	Reddish-purple	
4561	<i>Helianthemum</i>		"	"	"	Pink	
4562		(Compositae)	"	"	"	"	Yellow & brown; annual
4563		(Leguminosae)	"	"	"	"	Yellow
4564		(Compositae)	"	"	"	"	Yellow
4565	<i>Helianthemum</i>		"	"	"	"	Yellow
4566	<i>Amagallis arvensis</i>		"	"	"	"	Blue; annual
4567	<i>Matthiola</i>		"	"	"	"	Cream; annual
4568	<i>Convolvulus</i>		"	"	"	"	Pink; perennial
4569		(Leguminosae)	"	"	"	"	Yellow; 1 m; sea
4570		{ " }	"	"	"	"	Yellow
4571		{ " }	"	"	"	"	Yellow
4572	<i>Amagallis</i>		"	"	"	"	Pink; annual
4573		(Compositae)	"	"	"	"	Yellow

Number	Species	Family	Location	Elevation	Habitat	Color
4574	Campanula		High Atlas { between Asni and Morley Brahmi	1000 m	(Habitat as for 4553 m)	Blue.
4575				"	"	"
4576		(Compositae)	"	"	"	Cream.
4577	Salvia		"	"	"	White; perennial
4578		(Labiatae)	"	"	"	"
4579	Matthiola		"	"	"	Lilac; annual
4580	Melilotus		"	"	"	Yellow; annual
4581		(Leguminosae)	"	"	"	Yellow, perennial
4582	Linaria		"	"	"	Cream; annual
4583		(Leguminosae)	"	"	"	Cream.
4584	Plantago		"	"	"	-
4585	P	(Rubiaceae)	"	"	"	Pink
4586	Capparis spinosa		"	"	"	Creamy-white; scandent
4587		(Caryophyllaceae)	"	"	"	Pink.
4588	Ophrys		"	"	"	Yellow
4589		(Compositae)	"	"	"	Reddish; annual
4590	Teucrium fruticosum		"	"	"	Blue; 1 m.
4591	Dipsacis serotinum		"	"	"	Orange-brown.
4592	Viola		"	"	"	Bluish-white
4593		(Leguminosae)	"	"	"	Yellow.
4594		(Leguminosae)	"	"	"	Yellow; annual
4595		(Rubiaceae)	"	"	"	Reddish.
4596		(Leguminosae)	"	"	"	Yellow.
4597	Scabiosa		"	"	"	Reddish; annual
4598	Reseda		"	"	"	Greenish pink; annual
4599		(Borraginaceae)	"	"	"	"
4600	Ornithogalum pyramidale		"	"	"	"
4601	Reseda		"	"	"	Yellowish; annual
4602		(Leguminosae)	"	"	"	Red-purple.
4603		{ " }	"	"	"	Pale yellow.
4604		{ " }	"	"	"	Reddish; perennial
4605	Rumex		"	"	"	Reddish-yellow; annual
4606	Gynandritis sisyriachum		"	"	"	Blue-purple.

4607	<i>Syges monosperma</i>		High Atlas	{ between Asni & Moulay Brahim	1000 m	(Habitat as for 4553 on).	White; 2 m.
4608	Pteridophyta		"	"	"	"	~ in dry crevices
4609	<i>Iris planifolia</i>		"	"	"	"	Out of flower.
4610	<i>Romulea</i>		"	"	"	"	Not in flower; scarce
4611	<i>Ophrys lutea</i>		"	"	"	"	Very local
4612	<i>Gynandris</i>		"	"	"	"	Violet; local
4613	<i>Biatum</i>		"	"	"	"	Infrequent; not in fl.
4614	<i>Caralluma</i>		"	"	"	"	Local
4615	<i>Asphodelus</i>		"	"	"	"	Pale pink; annual
4616	<i>Scorzonera ? religiosa</i>	882.800.	"	"	"	"	Bright pink; tubercous
4617	<i>Dipsacis serotinum</i>		"	"	"	"	Amber; numerous
4618	<i>Convolvulus</i>		"	"	"	"	Pink
4619			"	"	"	"	Infrequent; greenish
4620	<i>Colchicum triphyllum</i>		High Atlas	Dj. Lukamedan	2500 m	Scree and stony soil at edge of melting snow	Lilac. pink
4621	<i>Narcissus watieri</i>		"	"	2000 m	North & north-west slopes; stony clay.	White; numerous.
4622	<i>Fritillaria</i>		"	"	"	Strictly confined to N.-facing slopes; among stones	Not in flower
4623		(Orchidaceae)	"	"	"	"	" ; scarce.
4624	<i>Astragalus ibrahimianus</i>		"	"	"	Open stony slopes.	Pale yellow
4625	<i>Sempervivum atlanticum</i>		"	below Lukamedan	1800 m	Rock crevices.	Scarce
4626	<i>Leucanthemum</i>		"	"	"	Stony north & north-west-facing slopes.	
4627	<i>Phagnalon helichrysoides</i>		"	"	"	"	: dry crevices
4628		(Pteridophyta)	"	"	"	"	: wet rocks
4629		(")	"	"	"	"	: wet rocks.
4630	Umbelliferae		"	"	"	"	Tuberous; not in fl.
4631	Cruciferae		"	"	"	"	: under overhangs. White,
4632	<i>Daphne laureola latifolia</i>		"	"	"	"	: at bases of boulders. Yellowish-green

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4683	<i>Linaria</i>		High Atlas } Jebelkal massif: above Aemol	2000 m	Open slopes on volcanic rock ; stony clays	Yellow		
4634	<i>Campanula</i>			"	"	"	Not in flower	
4635	<i>Convolvulus sabatius atlanticus</i>			"	"	"	Not in flower	
4637	<i>Anagallis monelli</i>			"	"	"	Brick-red.	
4638	<i>Narcissus watieri</i>			"	"	"	Not in flower; scarce	
4639	<i>Stachys villosa</i>			"	"	"	White	
4640	<i>Valerianella</i>			"	"	"	Pink.	
4641		(Umbelliferae)		"	"	"	White	
4642		(Leguminosae)		"	"	"	Yellow; caespitose	
4643	<i>Bellis</i>			"	"	"	Pale lilac	
4644	<i>Anagallis monelli</i>			"	"	"	Brick-red.	
4645		(Compositae)		"	"	"	Pink & white	
4646	<i>Sabia taraxacifolia</i>			"	"	"	Pink.	
→ 4647	<i>Pteroccephalus depressus</i>			"	"	"	Not in flower.	
4648	<i>Lychnis</i>		High Atlas } Moulay Brahim	1000 m	Volcanic rock crevices in Moulay Brahim gorge	White; perennial		
4649	<i>Clematis cristosa</i>			"	"	Old limestone outcrops below Moulay Brahim	Cream.	
4650	<i>Verbascum</i>			"	"	"	Yellow.	
4651	<i>Salvia</i>			"	"	"	White	
4652	<i>Stachys villosa</i>			"	"	"	White	
4653	<i>Urticogalum</i>			"	"	"	White : in fissures	
4654		(Borraginaceae)		"	"	"	White & purple	
4655		(")		"	"	"	Blue.	
4656	<i>Narcissus bulbocodium subsp. praecox</i>			"	"	"	: in humus-filled pockets	Not in flower.
4656A	<i>Allium</i>			"	"	"	: heavy clay.	Purplish-pink; rare

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4657	<i>Urginea noctiflora</i>		High Atlas } Ijji Gourane (above Amizmiz)	1,800 m.	In fissures of disintegrating, vertical schistose strata	Not in flower; rare.	
4658		(Leguminosae)		"	"	"	Yellow; prostrate mat
4659	<i>Romulea</i>			"	"	"	Not in flower
4660	<i>Scorzonera</i>			"	"	"	"

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Number	Species	Family	Location	Altitude	Habitat	Notes
4660A	Scilla		High Atlas { Dizi Gourane	1800 m	Stresses of disintegrating, vertical, schistose strata	Out of flower
4661	Narcissus		" above	"	"	"
4661A	Bellevalia		" Amizmiz	"	"	"
4662	Gladiolus		" "	"	"	"
4663		(Liliaceae)	" "	"	"	"
4664	Bellevalia		" "	"	"	"
4665	Mesendera filifolia		" "	"	"	"
4666	Orobanche		" "	"	"	Blue
4667	Polygala		" "	"	"	Bluish-white.
4668		(Liliaceae)	" "	"	"	Not in flower
4669	Leucanthemum		" "	1500 m.	Crevices on cliffs of volcanic rock,	Pink
4670	Narcissus		" Above	"	Limestone outcrop : depauperate overgrazed habitat	Not in flower
4671	Campanula		" Amizmiz	"	"	Blue
4672	Iris planifolia		" "	"	"	Not in flower
4673	Oryza		" "	"	(Habitat as for 4657 ~ 4668).	Pink ; perennial
4674	Narcissus		" "	"	(Habitat as for 4670 ~ 4672).	Not in flower
4675	Iris planifolia		" "	"	"	"
4676	Narcissus		" "	"	"	"
4677	Iris planifolia		" "	"	"	"
4678	Lavandula stoechas		" "	"	(Habitat as for 4669).	White
4679	Salvia taraxacifolia		" Tafgakt	1200 m.	Tilted outcropping limestone strata ; heavily grazed.	Pinkish
4680	Campanula		" above	"	"	Pale blue
4681	Ophrys lutea		" Amizmiz	"	"	Not in flower
4682		(Liliaceae ~ poss more than one species)	" "	"	"	"
4683.		(Leguminosae)	" Dizi Ouzla	1000 m	Crumbling schist ; steep slopes with little soil	Yellow ; cushions
4684.		"	" between Ami and Amizmiz	"	"	White & pink

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4685		(Amaryllidaceae)	Abilet, N. of	South of	600 m	Granite capping on schistose hills: crevices	Not in flower; rare.
4685 A	Caralluma		Marrakech	Sidi Irou	"	"	" ; local
4686	Allium		"	Ultmane	"	"	" ; "
4687	(misplaced)	Cerastium	N. of Rabat, crevices				
4688	Orobanch		"	"	500 m.	Dry, open slopes ; crumbling schist	Dark red; scarce.
4689		(Compositae)	"	"	"	"	Lilac pink; annual
4690		(Fabriatae)	"	"	"	"	Purple
4691	Orobanch		"	"	"	"	Yellow
4692		(Leguminosae)	"	"	"	"	Yellow.
4693		"	"	"	"	"	Reddish-purple
4694	Orobanch		"	"	"	"	Blue
4695	Erodium		"	"	"	"	Lilac-pink
4696		(Compositae)	"	"	"	"	Yellow
4697	Limonium		"	"	"	"	Bluish bracts; white
4698		(misplaced) (Leguminosae)	High Atlas	Tizi Toghane	1500 m.	(Habitat as for 4669)	Yellow.

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4699	Narcissus broussonetii		N. of Rabat	above	—	Stabilised coastal dunes and in limestone fissures	Not in flower
4700	Allium		"	Lac de	"	"	"
4701	Narcissus serotinus		"	Sidi	"	"	"
4702		(Liliaceae)	"	Bourhaba	"	"	"
4703	Umbilicus		"	"	"	" ~ in crevices only	Pink.
4704	Ophrys		"	"	"	"	Not in flower.