

Supplementary material of 'Diversity and characteristics of the melliferous flora of Moroccan Macaronesia (Territory of Sidi Ifni)', by Awatif Ben Lekbir et al. <https://doi.org/10.5209/mbot.82370>

Table S1. Flowering period (1-12) of the main melliferous plants in zone A.

Taxa / Flowering period	1	2	3	4	5	6	7	8	9	10	11	12
Aizoaceae												
<i>Aizoanthes hispanica</i>	[Shaded bar from column 1 to 12]											
Amaranthaceae												
<i>Arthrocnemum macrostachyum</i>			[Shaded bar from column 3 to 12]									
<i>Chenopodium ambrosioides</i>			[Shaded bar from column 3 to 12]									
<i>Salsola vermiculata</i>			[Shaded bar from column 3 to 12]									
<i>Suaeda vera</i>			[Shaded bar from column 3 to 12]									
Asparagaceae												
<i>Asparagus albus</i>						[Shaded bar from column 6 to 11]						
Compositae												
<i>Glebionis coronaria</i>	[Shaded bar from column 1 to 5]											[Shaded bar in column 12]
<i>Kleinia anteuphorbium</i>			[Shaded bar from column 3 to 12]									
<i>Senecio glaucus</i> subsp. <i>coronopifolius</i>	[Shaded bar from column 1 to 9]										[Shaded bar in column 12]	
Cactaceae												
<i>Opuntia ficus-indica</i>			[Shaded bar from column 3 to 8]									
Euphorbiaceae												
<i>Euphorbia officinarum</i> subsp. <i>echinus</i>						[Shaded bar from column 6 to 9]						
<i>Euphorbia regis-jubae</i>			[Shaded bar from column 3 to 5]									
Frankeniaceae												
<i>Frankenia pulverulenta</i>			[Shaded bar from column 3 to 12]									
Plumbaginaceae												
<i>Limonium fallax</i>			[Shaded bar from column 3 to 5]									
<i>Limonium sinuatum</i> subsp. <i>beaumierianum</i>	[Shaded bar from column 1 to 2]		[Shaded bar from column 3 to 5]									
Zygophyllaceae												
<i>Zygophyllum gaetulum</i>						[Shaded bar from column 6 to 11]						

Xanthorrhoeaceae
Asphodelus tenuifolius

Appendix S1. Melliferous species in Sidi Ifni (Ait Baâmrane region). Abbreviations are: Life forms: Ph, Phanerophyte; Nph, Nanophanerophyte; Ch, Chamaephyte; Hem, Hemicryptophyte; G, Geophyte; T, Therophyte; GB, Bulbous geophyte; GR, Rhizome geophyte; Th-b, Biennial therophyte. Endemism: E, Endemic to Morocco; C, Endemic to Morocco and the Canary Islands; A, Endemic to Morocco and Algeria; M, Endemic to Morocco and Mauritania; IA, Endemic to Morocco; the Iberian Peninsula and Algeria. Conservation status: NA, Not applicable; DD, Insufficient data; LC, Least Concern; NT, Near Threatened; EN, Endangered. Flowering period: H, Winter; P, Spring; E, Summer; A, Autumn. Beekeeping interest: P, Pollen; N, Nectar; NP, Nectar and Pollen; PMB, Plants cited as melliferous by beekeepers; PAI, Plants having an apiarian interest according to the bibliography; +: exists; -: absent.

Scientific Names	Arabic Common Names	Biological types	Endemism	IUCN Status	Beekeeping interest	Colors	Flowering period	PMB	PAI
Aizoaceae									
<i>Aizoon canariense</i>	Dazza	Th		LC	NP	Yellow	H P	+	+
<i>Aizoanthemopsis hispanica</i>	Lghassoul	Th		LC	NP	White	H P	+	+
<i>Mesembryanthemum crystallinum</i>	Lghassoul kbir	Th		LC	NP	White	P E	+	+
Amaranthaceae									
<i>Arthrocnemum macrostachyum</i>	Laajrab	Nph		LC	P	Yellow	P E A	+	+
<i>Chenopodium ambrosioides</i>		Th			P	Green	P E A	+	+
<i>Salsola oppositifolia</i>	Laassal	Nph		LC	NP	Beige	P E A	+	+
<i>Salsola vermiculata</i>	Tasra, Lisrif	Ch		LC	NP	Beige	P E A	+	+
<i>Suaeda vera</i>	Swayd	Nph		LC	P	Green	P E A		
Anacardiaceae									
<i>Searsia pentaphylla</i>		Nph		LC	NP	Green	P (A)	+	+
<i>Searsia tripartita</i>	Tizgha	Nph		LC	NP	Yellow	P	+	+
Apiaceae									
<i>Coriandrum sativum</i>		Th			N	White	P E	+	+
<i>Eryngium ilicifolium</i>	Zrriga	Th		LC	NP	Blue	P E	+	+
<i>Eryngium tricuspdatum</i>	Zrriga	Hem		LC	NP	Blue	E	+	+
<i>Foeniculum vulgare</i>	Lbasbas	Ch	E	LC	NP	Yellow	P E (A)	+	+
<i>Thapsia garganica</i>		G		NA	NP	Yellow	P	+	+
Apocynaceae									
<i>Periploca angustifolia</i>	Lhlab	Nph		LC	NP	Green	TA	+	+
Asparagaceae									
<i>Agave americana</i>	Ssabra	Hem			NP	Yellow	E	+	+
<i>Asparagus acutifolius</i>		Nph			NP	Yellow	E A	+	+

<i>Asparagus albus</i>	Sskoum	Nph			NP	White	E A	+	+
<i>Drimia maritima</i>		GB			NP	White	E A(H)	+	+
<i>Leopoldia comosa</i>		GB			NP	Mallow	P E	+	+
<i>Ornithogalum narbonense</i>	Ryaga	GB			NP	White	P E	+	+
Compositae									
<i>Aaronsohnia pubescens</i> subsp. <i>maroccana</i>	Lbabounj	Th	E	LC	NP	White	(H)	+	+
<i>Artemisia herba-alba</i>	Chih	Ch		DD	NP	White	E A	+	+
<i>Asteriscus graveolens</i>	Tafssa	Ch		LC	NP	Yellow	H P	+	+
<i>Calendula arvensis</i>	Ljmra	Th		LC	NP	Yellow	H P E	+	+
<i>Calendula suffruticosa</i>		Ch	E	DD	NP	Yellow	H P E	+	+
<i>Catananche arenaria</i>		Th		DD	N	White	P (E)	+	+
<i>Cladanthus arabicus</i>	Wawrmid	Th		LC	NP	Yellow	P E	+	+
<i>Echinops spinosissimus</i> subsp. <i>spinosus</i>	Chouk, Khrchef lbl	Hem		LC	NP	Blue	P E (A)	+	+
<i>Glebionis coronaria</i>	Gahwan abyad	Th		LC	NP	White	(H) P	+	+
<i>Glebionis segetum</i>	Gahwan asfar	Th		LC	NP	Yellow	(H) P	+	+
<i>Hypochaeris angustifolia</i>	Tloudi	Hem	E	LC	P	Yellow	P E	+	+
<i>Kleinia anteuphorbium</i>	Chbbartou	Nph	E	NT	NP	Yellow	(H) PE (A)	+	+
<i>Launaea arborescens</i>	Om lbina	Nph		LC	NP	Yellow	P E A	+	+
<i>Reichardia tingitana</i>	Bougho	Th		LC	NP	Yellow	P E	+	+
<i>Scolymus hispanicus</i>	Lkharchef, Lgrmina	Hem		LC	NP	Yellow	P E	+	+
<i>Scorzonera undulata</i>	Lgiz	Hem		LC	P	Pink	P	+	+
<i>Senecio glaucus</i> subsp. <i>coronopifolius</i>		Th		LC	NP	Yellow	H P E	+	+
<i>Sonchus tenerrimus</i>	Tofaf	Th		LC	N	Yellow	H P E(A)	+	+
<i>Volutaria lippii</i>	Mrar lbl	Th	E	LC	NP	Blue	(H) P	+	+
<i>Volutaria muricata</i>	Lmghizli	Th		LC	NP	Pink	(H) P(E)	+	+
<i>Warionia saharae</i>	Afssas	Nph	A	NT	NP	Yellow	P E		
Boraginaceae									
<i>Echium petiolatum</i>	Om laasal	Th	E	LC	NP	Blue	P	+	+
<i>Heliotropium crispum.</i>	Lhbalya	Ch		LC	NP	White	H P (A)	+	+
Cruciferae									
<i>Brassica souliei</i>	Karkaz kbir	Th		LC	NP	Yellow	H P (E)	+	+
<i>Diploaxis harra</i> subsp. <i>crassifolia</i>	Karkaz	Hem (Ch)		LC	NP	Yellow	H P E	+	+

<i>Eruca vesicaria</i>		Th		LC	NP	White	P (E)	+	+
Cactaceae									
<i>Opuntia ficus-indica</i>	Lhndya	Nph		NA	NP	Yellow	P E	+	+
Caryophyllaceae									
<i>Paronychia argentea</i>	Chtabt naaja	Hem		LC	NP	Yellow	H P E	+	+
<i>Silene virescens</i>		Ch	E	LC	NP	Pink	H P E		
<i>Silene vulgaris</i>		GR		LC	NP	White	H P E		
Cistaceae									
<i>Cistus salviifolius</i>		Ch(Nph)		LC	P	White	p	+	+
<i>Helianthemum pergamaceum</i> subsp. <i>pergamaceum</i>		Ch		LC	NP	Pink	H P		
Convolvulaceae									
<i>Convolvulus althaeoides</i>	Lwaya	Hem		LC	NP	Pink	P E	+	+
<i>Convolvulus trabutianus</i>	Ajgharghad, Lgandoul	Ch		NT	NP	White	TA	+	+
<i>Cuscuta sp.</i>		Th			NP	Pink	P E	+	+
Crassulaceae									
<i>Sedum versicolor</i>		Th	E	LC	NP	Yellow	P E	+	+
Cupressaceae									
<i>Tetraclinis articulata</i>	Laaraar	Ph		LC	PM	Brown	P	+	+
Ephedraceae									
<i>Ephedra altissima.</i>	Boukmaych	Ph-l(Nph)		LC	P	Yellow	H P	+	+
Euphorbiaceae									
<i>Euphorbia officinarum</i> subsp. <i>echinus</i>	Daghmous	Nph	M	NT	NP	Yellow	E (A)	+	+
<i>Euphorbia regis-jubae</i>	Lfrnan	Nph	C	NT	NP	Yellow	P	+	+
<i>Ricinus communis</i>	Lkhrwa3	Ph		NA	NP	Yellow	E A	+	+
Leguminosae									
<i>Acacia gummifera</i>	Talh	Ph	E	LC	NP	Yellow	P E (A)	+	+
<i>Acacia saligna</i>		Ph		NA	NP	Yellow	H P	+	+
<i>Ceratonia siliqua</i>	Lkharoub	Ph		LC	N	Crimson	A H	+	+
<i>Coronilla viminalis</i>		Nph	E	LC	NP	White	P E	+	+
<i>Genista ifniensis</i>		Nph	E	LC	P	Yellow	P	+	+
<i>Genista tricuspidata</i>	Ochfoud, Ojfoud	Nph		LC	P	Yellow	P	+	+
<i>Lotus arenarius</i>		Th		LC	NP	Yellow	(H) P (E)	+	+
<i>Melilotus officinalis</i>	Nafla	Th		NA	NP	Yellow	P	+	+

Frankeniaceae									
<i>Frankenia corymbosa.</i>		Ch		LC	NP	White	p	+	+
<i>Frankenia pulverulenta</i>	Lghbyra, Tmmir	Th		LC	NP	Pink	P (A)	+	+
Geraniaceae									
<i>Erodium ciconium.</i>		Th		LC	NP	Blue	H P	+	+
Iridaceae									
<i>Gladiolus italicus.</i>		G			NP	Pink	p	+	+
Lamiaceae									
<i>Ajuga iva</i>	Chandgoura	Hem(Th)		LC	NP	Yellow	P E	+	+
<i>Lavandula dentata</i>	Lhalhal	Ch		LC	NP	Mallow	P A	+	+
<i>Lavandula multifida</i>	Lkhzama, Lkahila	Ch		LC	NP	Mallow	P A	+	+
<i>Marrubium vulgare</i>	Mrrird	Ch		LC	NP	White	P E	+	+
<i>Rosmarinus officinalis</i>	Lyazir	Nph		NT	NP	Blue	P E	+	+
<i>Salvia aegyptiaca</i>		Ch		LC	NP	Blue	H P E	+	+
<i>Teucrium antiatlanticum</i>		Ch	E	EN(e)	NP	White	P E	+	+
<i>Thymus maroccanus</i>	Zzaatar	Ch	E	DD	NP	White	P	+	+
Malvaceae									
<i>Malva parviflora</i>	Boumjayr, Lkhbiza	Th-b		LC	N	white	H P	+	+
Moraceae									
<i>Ficus carica</i>	Karmous	Ph		NA	LS	white	P E	+	+
Myrtaceae									
<i>Eucalyptus sp</i>		Ph			NP	Pink	P	+	+
Oleaceae									
<i>Olea europaea subsp.oleaster</i>	Zaytoun	Ph		LC	NP	White	P	+	+
Orobanchaceae									
<i>Striga gesneroides</i>		G			NP	Pink	P	+	+
Papaveraceae									
<i>Fumaria rupestris subsp. rupestris</i>		Th	IA	LC	NP	Brown	P E	+	+
<i>Papaver rhoeas</i>	Flolo	Th		LC	P	Red	P E		
Plantaginaceae									
<i>Kickxia heterophylla</i>		Th			NP	Yellow	P E	+	+
<i>Linaria bipartita</i>		Th	E	LC	NP	Mallow	H P	+	+
<i>Plantago afra</i>		Th			P	White	P	+	+
Plumbaginaceae									

<i>Limonium fallax</i>		Hem	E	NT	NP	Pink	P	+	+
<i>Limonium lobatum.</i>	Garssa bayda	Th		LC	NP	White	P (A)	+	+
<i>Limonium sinuatum</i> subsp. <i>beaumierianum</i>	Garssa zarka	Th		LC	NP	Blue	H P	+	+
Gramineae									
<i>Cynodon dactylon</i>		Hem			P	Green	TA	+	+
<i>Hordeum vulgare</i>		Th			P	Green	P E	+	+
<i>Triticum aestivum</i>		Th			P	Green	E	+	+
<i>Zea mays</i>		Th			P	White	E A	+	+
Polygonaceae									
<i>Emex spinosa</i>	Lhazab	Th		LC	P	White	H P	+	+
<i>Rumex vesicarius</i>	Lhmida	Th		LC	P	Red	P	+	+
Primulaceae									
<i>Anagallis arvensis</i>	Aawint lhajla	Th		LC	P	Blue	TA	+	+
Rhamnaceae									
<i>Ziziphus lotus.</i>	Ssdar, Zrab	Nph		LC	N	Yellow	P E	+	+
Rosaceae									
<i>Prunus dulcis</i>	Louz	Ph		NA	NP	White	H P	+	+
Rutaceae									
<i>Citrus sinensis</i>	Laymoun	Ph			NP	White	H P	+	+
Sapotaceae									
<i>Argania spinosa</i>	Argan	Ph	?A	NT	NP	White	P	+	+
Solanaceae									
<i>Hyoseyamus albus</i>	Ssaykran	Th		LC	NP	White	P E	+	+
<i>Lycium intricatum</i>	Lghartag, lghardag	Nph	E	LC	NP	Mallow	P E (A)	+	+
<i>Solanum nigrum</i>	Maticha lhraymya	Th		LC	N	White	P E	+	+
<i>Withania frutescens</i>	Tiramte	Nph		LC	NP	Yellow	P E A	+	+
Xanthorrhoeaceae									
<i>Asphodelus macrocarpus</i>	Lbrwag	G			NP	White	P E	+	+
<i>Asphodelus tenuifolius</i>	Tazya	Th			NP	White	(A) P E	+	+
Zygophyllaceae									
<i>Fagonia cretica</i>	Jbibina	Ch		LC	NP	Pink	P	+	+
<i>Fagonia harpago</i>	Tliha	Ch	E	NT	NP	Pink	P	+	+
<i>Peganum harmala</i>	Lharmal	Ch			NP	White	P E	+	+
<i>Zygophyllum gaetulum</i>	Laagaya	Ch	E	LC	P	White	P(A)	+	+

