

ON-LINE SUPPLEMENTAL MATERIAL

Boubetra K., Amirouche N., Amirouche R.: Morpho-anatomical diversity of five species of the genus *Asparagus* (Asparagaceae) from Algeria. Acta Bot Croat, DOI: 10.37427/botcro-2022-014.

On-line Suppl. Tab. 1. Origins of the five studied species of genus *Asparagus*, and the bioclimatic and floristic characteristics of the collecting sites in northern Algeria.

Species	Voucher	Localities	BS	Type of soil	Bioclim	Alt.	P	M °C	m °C	Habitat and dominante species
<i>A. acutifolius</i>	ENSA13337	Bainem	A1	Sandy clay	SH	248	776	28.00	7.80	Forest of <i>Pinus halepensis</i> with <i>Quercus coccifera</i> and <i>Myrtus communis</i>
<i>A. officinalis</i>	ENSA13348	Tessala El-Meurdja	A1	Sandy clay	SH	26	615	26.80	10.50	Hedges of cultivated fields
<i>A. acutifolius</i>	ENSA13338	Souidania	A1	Blue Marly	SH	169	717	25.30	10.90	Slope of marly hills with <i>Chamaerops humilis</i> , <i>Drimia maritima</i> and various bulbous plants
<i>A. acutifolius</i>	ENSA13339	Bouchaoui	A1	Loamy sand	SH	23	709	25.10	11.10	Maritime pine stands with herbaceous undergrowth
<i>A. acutifolius</i> <i>A. albus</i>	ENSA13340 ENSA13349	Keddara	A1	Marly limestone	SH	317	756	25.60	9.40	On a hilly slope with <i>Calycotome spinosa</i> , <i>Opuntia ficus-indica</i> and various herbaceous Poaceae and Fabaceae
<i>A. acutifolius</i>	ENSA13358	Ténès	O1	Limestone	SH	78	489	27.20	11.70	Rocky cliffs with <i>Chamaerops humilis</i> , <i>Thymelea hirsuta</i> , <i>Asphodelus ramosus</i>
<i>A. albus</i>	ENSA13364	Tablat	A2	Clay-loam	SH	382	686	25.40	6.80	On dry and stony soils with <i>Calycotome spinosa</i> , <i>Genista</i> sp.
<i>A. acutifolius</i>	ENSA13341	EL-Affroun	A1		SH	123	658	26.30	11.40	Edge of cultivated field
<i>A. acutifolius</i> <i>A. albus</i>	ENSA13342 ENSA13350	Chiffa	A2	Lithosol	SH	154	735	28.50	3.10	On the wet slopes of the Gorges of Chiffa
<i>A. acutifolius</i>	ENSA13359	Mezloug	Hd	Limestone	SA	1079	469	24.00	4.50	Herbaceous meadows
<i>A. acutifolius</i>	ENSA13360	Redjredj	A2	Clay marly	H	731	537	25.50	6.80	Scree slope, associated with various prostrate shrubs and bulbous plants
<i>A. acutifolius</i> <i>A. albus</i>	ENSA13343 ENSA13351	Tipaza	A1	Sandy clay	SH	104	656	26.60	11.20	Open vegetation highly degraded with <i>Asphodelus microcarpus</i> and <i>Ampelodesma mauritanicum</i>
<i>A. acutifolius</i>	ENSA13344	Zemmouri	A1	Sandy	SH	5	769	26.40	11.50	Undergrowth of a littorale forest of <i>Pinus halepensis</i> and <i>P. maritimum</i>
<i>A. albus</i>	ENSA13366	Boumerdes	A1	Marly	SH	35	672	26.60	9.80	Littoral forest with <i>Pinus halepensis</i> , <i>Quercus coccifera</i> and <i>Pistacia lentiscus</i> .
<i>A. acutifolius</i>	ENSA13346	Mansourah	O2	Sandy clay	SH	817	486	25.80	8.50	Under forest of <i>Quercus canariensis</i> , <i>Q. suber</i> and <i>Juniperus oxycedrus</i>
<i>A. albus</i>	ENSA13365	Ain El Hadjar	C	Brown limestone	SA	565	734	26.50	6.60	Vegetation of xerophytes on stony soil
<i>A. horridus</i>	ENSA13353	Hassi Fedoul	O3	Brown Limestone	SA	792	527	27.30	8.50	Bushy formation of xerophytes
<i>A. acutifolius</i>	ENSA13361	Senalba	AS	Calcimagnesianic	SA	1145	338	24.20	4.50	Steppic formation with <i>Stipa tenassissima</i> , <i>Pinus halepensis</i> , <i>Rosmarinus tournefortii</i> and <i>Cistus</i> sp.
<i>A. horridus</i>	ENSA13354	Emir Khaled	O3	Clay loam	SA	346	527	27.30	8.50	Sparse vegetation on dry and stony soil with <i>Scolymus hispanicus</i>

<i>A. acutifolius</i>	ENSA13362	Ain Smara	C	Limestone	SA	614	550	25.50	7.30	Clearing of reforestation of <i>Pinus halepensis</i>
<i>A. acutifolius</i>	ENSA13363	El-Aouana	K2	Loamy sand	H	74	1031	27.00	9.00	Coastal forest with <i>Quercus suber</i>
<i>A. altissimus</i>	ENSA13357	Misserghin	O1	Sandy	SA	99	364	26.60	11.50	Natural hedge with <i>Ephedra fragilis</i> and <i>Whitania frutescens</i>
<i>A. albus</i> <i>A. acutifolius</i> <i>A. horridus</i>	ENSA13352 ENSA13347 ENSA13355	El Ançor	O1	Stony sand	SA	114	325.7	32.90	5.100	Sublittoral degraded maquis with <i>Quercus coccifera</i> , <i>Pistacia lentiscus</i> , <i>Chamaerops humilis</i> , <i>Whitania frutescens</i> , <i>Drima maritima</i>
<i>A. horridus</i>	ENSA13356	Boughezoul	AS	Brown limestone	A	636	383	28.10	6.30	Steppic vegetation with <i>Genista</i> , <i>Atriplex halimus</i> , <i>Atractylis cancellata</i>

Nomenclature according to Maire (1958) and Quézel and Santa (1962)

BS, Bioclim: Biogeographical sectors and bioclimates are from Quézel and Santa (1962). A1, A2: Algiers, C: Constantine, O1, O2, O3: Oran, Hd: Hodna, AS: Saharian Atlas, K1, K2, K3: Kabylies.

Bioclimate stages are from Quézel and Santa (1962). H: Humid, SH: Subhumid, SA: Semiarid, A: Arid.

Alt: altitude in meters, P: the annual rainfall (in millimeters), M °C and m °C are the averages temperatures of the hottest and the coldest month, respectively.

On-line Suppl. Tab. 2. Comparison of the anatomical characteristics between the cladodes of the five Algerian *Asparagus* species.

Species	Shape of section	Epidermal cells	Cuticle	Raphides	Vascular bundles
<i>A. acutifolius</i>	Circular	Isodiametric	Thick	+	2
<i>A. albus</i>	Triangular	Rounded irregular	Thin	-	4
<i>A. horridus</i>	Triangular	Rounded	Thick	-	Numerous
<i>A. officinalis</i>	Circular	Rounded irregular	Thin	-	2
<i>A. altissimus</i>	Circular	Square	Thick	+	4