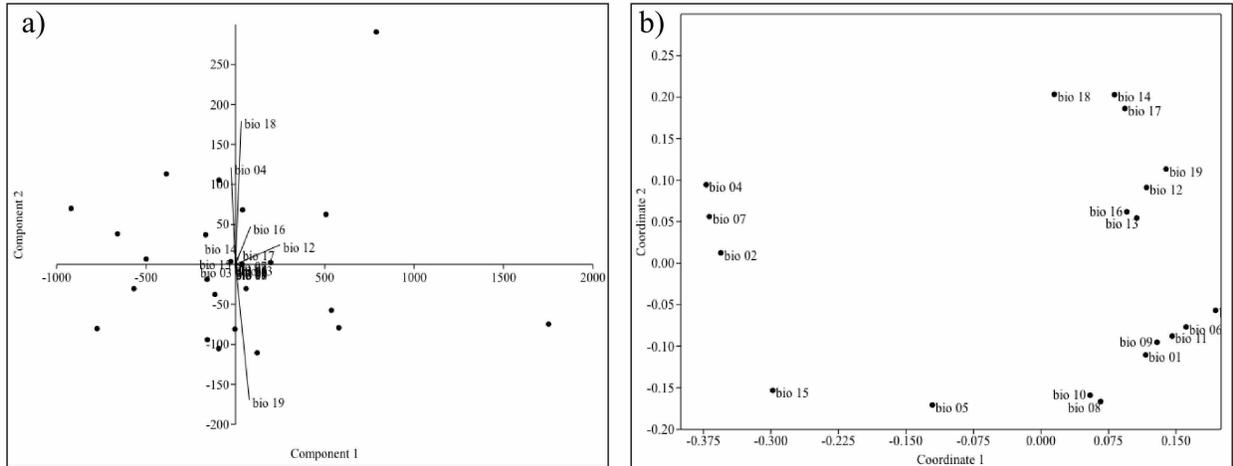


APPENDIX 1

Numerical ecology analyses of bioclimatic variables. **A.** Principal component analysis and **B.** Non-metric multidimensional scaling analysis using Pearson correlations of bioclimatic variables to identify which bioclimatic variables are correlated and important in the Capparaceae distribution



APPENDIX 2

Taxon sampling, voucher identification, and GenBank accession numbers

Taxon	Voucher	<i>ndhF</i>	<i>matK</i>	<i>rbcL</i>	<i>rsp3</i>
Akaniaceae					
<i>Akania bidwillii</i> (Hogg) Mabb.	P.I. Forster 36236 (BRI)	KU739548	KU739542	KU739558	KU739704
Capparaceae					
<i>Boscia longifolia</i> Hadj. Moust.	P.B. Philipson 3950 (WIS)	EU373678	EU371748	KU739572	KU739720
<i>Buchholzia coriacea</i> Engl.	M. Merella 1656 (MO)	EU373678	EU371750	KU739574	KU739722
<i>Buchholzia tholloniana</i> Hua	M. Etuge 4497r (K)	EU373679	EU371751	KU739575	KU739723
<i>Cadaba virgata</i> Boj.	Lewis 534 (MO)	AY122362	EU371753	KU739577	KU739725
<i>Capparis lucida</i> (Banks ex DC.) Benth.	W.J. Hahn 6192 (WIS)	EU373685	EU371762	KU739585	KU739734
<i>Capparis ovata</i> Desf.	Millenium Seed Bank 243816 (K)	KU739555	KU739546	KU739586	KU739734
<i>Capparis sandwichiana</i> DC.	H.H. Iltis 30502 (WIS)	EU373690	EU371768	KU739587	KU739735
<i>Capparis spinosa</i> L.	J. Rodman 533 (WIS)	EU373694	EU371772	KU739588	KU739736
<i>Crateva religiosa</i> Forster	W.J. Hahn 6175 (WIS)	AY122371	EU371780	KU739592	KU739741

<i>Euadenia eminens</i> Hook f.	T.B. Hart 1575 (MO)	AY122373	EU371782	KU739599	KU739749
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Neotropical Capparaceae

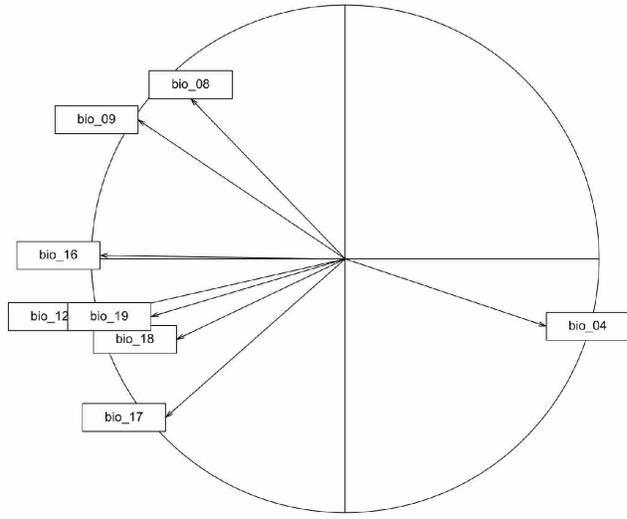
<i>Anisocapparis speciosa</i> (Griseb.) X. Cornejo & H.H. Iltis	M.C. Franceschini 50 (WIS)	AY122357	EU371771	KU739568	KU739716
<i>Atamisquea emarginata</i> Miers	J.C. Solomon 10473 (WIS)	AY122357	EU371745	KU739569	KU739718
<i>Belencita nemorosa</i> Jacq.	H.H. Iltis 30550 (WIS)	AY122358	U371746	KU739570	----
<i>Calanthe stenosepala</i> (Urb.) X. Cornejo & H.H. Iltis	H.H. Iltis 35504 (WIS)	EU373697	EU371775	KU739578	KU739726
<i>Capparicordis crotonoides</i> (Kunth) H.H. Iltis & X. Cornejo	X. Cornejo 7586 (WIS)	EU373681	EU371769	KU739579	KU739727
<i>Capparidastrum frondosum</i> (Jacq.) X. Cornejo & H.H. Iltis	X. Cornejo 7597 (WIS)	KU739728	GQ981949	KU739580	KU739728
<i>Colicodendron scabridum</i> (Kunth.) Seem.	G.P. Lewis 2451 (WIS)	EU373691	EU371757	KU739591	KU739739
<i>Crateva palmeri</i> Rose	J.C. Hall 105 (WIS)	AY122370	AY483229	AY483265	KU739740
<i>Crateva tapia</i> L.	H.H. Iltis 30513/4 (WIS)	AY122372	EU371781	KU739593	KU739742
<i>Cynophalla amplissima</i> (Lam.) H.H. Iltis & X. Cornejo	H.H. Iltis 31313 (WIS)	AY122363	EU371754	KU739594	KU739743
<i>Cynophalla flexuosa</i> (L.) J. Presl	H.H. Iltis 30319 (WIS)	AY122365	EU371760	KU739595	KU739744
<i>Cynophalla hastata</i> (Jacq.) J. Presl	H.H. Iltis 30330 (WIS)	AY122366	-----	----	KU739745
<i>Cynophalla retusa</i> (Griseb.) X. Cornejo & H.H. Iltis	E.M. Zardini 42400 (WIS)	EU373689	EU371767	KU739596	KU739746
<i>Cynophalla sessilis</i> (Banks ex DC.) J. Presl	H.H. Iltis 30561 (WIS)	AY122369	EU371770	KU739597	KU739747
<i>Cynophalla verrucosa</i> (Jacq.) J. Presl	H.H. Iltis 30524 (WIS)	AY122369	EU371778	KU739598	KU739748
<i>Monilicarpa tenuisiliqua</i> (Jacq.) X. Cornejo & H.H. Iltis	H.H. Iltis 30512 (WIS)	AY122368	EU371776	KU739602	KU739752
<i>Morisonia americana</i> L.	H.H. Iltis 30538 (WIS)	AY122374	EU371784	KU739603	KU739753
<i>Neocapparis pachaca</i> (Kunth) Cornejo	H.H. Iltis 30523 (WIS)	EU373687	EU371765	KU739581	KU739729
<i>Preslianthus pittieri</i> (Standl.) H.H. Iltis & X. Cornejo	J.C. Hall 108 (WIS)	EU373688	EU371766	KU739604	KU739754
<i>Quadrella angustifolia</i> (Kunth) H.H. Iltis & X. Cornejo	W.J. Hahn 6201 (WIS)	EU373680	EU371755	KU739605	KU739755
<i>Quadrella cynophallophora</i> (L.) Hutch.	H.H. Iltis 30321 (WIS)	EU373682	EU371758	KU739606	KU739756
<i>Quadrella indica</i> (L.) H.H. Iltis & X. Corenejo	H.H. Iltis 30230 (WIS)	EU373684	EU371761	KU739607	KU739757
<i>Quadrella odoratissima</i> (Jacq.) Hutch.	H.H. Iltis 30576 (WIS)	EU373686	EU371764	KU739608	KU739758
<i>Steriphoma paradoxum</i> Endl.	H.H. Iltis 30536 (WIS)	AY122376	EU371786	KU739610	KU739760

Cleomaceae

<i>Cleome africana</i> Botsch.	Hall & Taggart 31Oct2008 (ALTA)	HQ452951	HQ452946	----	KU739765
<i>Cleome ambylocarpa</i> Barr. & Murb.	Mankowski 19Aug2008 (ALTA)	HQ452952	HQ452946	----	KU739766
<i>Cleome arabica</i> L.	J.C. Hall s.n. (WIS)	EU373701	EU371791	KU739616	KU739767
<i>Cleome droserifolia</i> (Forssk.) Del.	A.G. Miller 6387 (WIS)	EU373703	EU371794	KU739619	KF923198
<i>Cleome ornithopodioides</i> L.	WIS Botanical Garden	EU373707	EU371799	KU739621	KF923212
<i>Cleome violacea</i> L.	Hall & Bolton 20Feb2008 (ALTA)	HQ452955	HQ452950	KU739625	KF923227
<i>Cleomella longipes</i> Torr.	S. Vaderpool 1334 (OKL)	AY122387	EU371807	KU739628	KU739772
<i>Podandroyne mathewsii</i> (Briq.) Cochrane	M. Nepokroeff 450 (WIS)	EU373720	EU371816	KU739633	KU739773
Moringaceae					
<i>Moringa oleifera</i> Lam.	H.H. Iltis 30501 (WIS)	AY122405	AY483223	----	KU739782

APPENDIX 3

Niche of Neotropical Capparaceae in climatic space explained by the first two PCA axes. Shading represents the density of occurrence of each species by cell. The solid and dashed contour lines illustrate, respectively, 100 % and 50 % of the available (background) environment. The correlation circle shows the contribution of the climatic variables on the two axes of the PCA and the percentage of inertia explained by the two axes



axis1 = 59.1 % axis2 = 15.74 %

