

Ecosphere

Livestock and the functional habitat of vicuñas in Ecuador: a new puzzle

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Appendix S1

Table S1. Plant species in three regions of the Chimborazo Faunal Production Reserve classified as forage and non-forage plants based on vicuña bites. Species names in boldface were found uniquely in one of Lists A through C, referring to the habitat structures and conditions described in the paper. Five nearly ubiquitous species, marked with asterisks (*Bidens humilis* occurring only in upland areas), were also the most selected by vicuñas according to Ivlev's selectivity index.

Rainy or windward (RW)	Rain shadow (RS)	Xeric páramo (XP)
List A: Forage plants in upland areas where vicuñas occurred without livestock		
<i>Astragalus geminiflorus</i>	<i>A. geminiflorus</i>	<i>A. geminiflorus</i>
<i>Bidens humilis</i> *	<i>Azorella pedunculata</i>	<i>A. pedunculata</i>
<i>Calamagrostis intermedia</i> *	<i>B. humilis</i> *	<i>B. humilis</i> *
<i>Colobanthus quitensis</i>	<i>C. intermedia</i> *	<i>C. intermedia</i> *
<i>Hypochaeris sessiliflora</i>	<i>Cerastium floccosum</i>	<i>H. sessiliflora</i>
<i>Oritrophium peruvianum</i>	<i>C. quitensis</i>	^a <i>P. annua</i> *
<i>Paepalanthus ensifolius</i> *	<i>H. sessiliflora</i>	<i>P. ensifolius</i> *
^a <i>Poa annua</i> *	^a <i>P. annua</i> *	<i>S. ichu</i> *
<i>Stipa brachychaeta</i>	<i>P. ensifolius</i> *	<i>Valeriana rigida</i>
<i>Stipa ichu</i> *	<i>Plantago rigida</i>	<i>W. pumila</i>
^a <i>Trifolium repens</i>	<i>S. brachychaeta</i>	
<i>Werneria pumila</i>	<i>S. ichu</i> *	
	<i>W. pumila</i>	

List B: Forage plants in upland areas where vicuñas occurred with livestock

<i>Astragalus geminiflorus</i>	<i>A. geminiflorus</i>	<i>A. geminiflorus</i>
<i>Bidens humilis</i> *	<i>Azorella pedunculata</i>	<i>A. pedunculata</i>
<i>Calamagrostis intermedia</i> *	<i>B. humilis</i> *	<i>B. humilis</i> *
<i>Cerastium floccosum</i>	<i>C. intermedia</i> *	<i>C. intermedia</i> *
^b <i>Distichia muscoides</i>	<i>C. floccosum</i>	<i>H. sessiliflora</i>
<i>Eryngium humile</i>	<i>Hypochaeris sessiliflora</i>	^a <i>P. annua</i> *
<i>Geranium multipartitum</i>	^a <i>P. annua</i> *	<i>P. ensifolius</i> *
<i>Paepalanthus ensifolius</i> *	<i>P. ensifolius</i> *	^{a, b} <i>Polylepis reticulata</i>
^a <i>Poa annua</i> *	<i>Plantago rigida</i>	<i>S. ichu</i> *
<i>Stipa ichu</i> *	<i>S. ichu</i> *	<i>Valeriana rigida</i>
^a <i>Trifolium repens</i>	<i>W. pumila</i>	<i>W. pumila</i>
<i>Werneria pumila</i>		

List C: Forage plants in wetland areas where vicuñas occurred with livestock

<i>Alchemilla pinnata</i>	<i>A. pinnata</i>	<i>A. pinnata</i>
<i>Calamagrostis intermedia</i> *	<i>Azorella pedunculata</i>	<i>C. intermedia</i> *
<i>Colobanthus quitensis</i>	<i>C. intermedia</i> *	<i>C. quitensis</i>
^b <i>Distichia muscoides</i>	<i>E. humile</i>	<i>Cerastium floccosum</i>
<i>Eryngium humile</i>	<i>G. multipartitum</i>	<i>E. humile</i>
<i>Geranium multipartitum</i>	<i>Gunnera magellanica</i>	<i>G. magellanica</i>
<i>Oritrophium peruvianum</i>	^a <i>P. annua</i> *	<i>G. multipartitum</i>
<i>Paepalanthus ensifolius</i> *	<i>P. ensifolius</i> *	<i>O. peruvianum</i>
^a <i>Poa annua</i> *	<i>Plantago rigida</i>	^a <i>P. annua</i> *
<i>Stipa ichu</i> *	<i>S. ichu</i> *	<i>P. ensifolius</i> *
	<i>Valeriana rigida</i>	<i>P. rigida</i>
	<i>W. pumila</i>	^{a, b} <i>Polylepis reticulata</i>
		<i>S. ichu</i> *
		^{a, b} <i>Taraxacum officinale</i>
		^b <i>Trifolium amabile</i>
		^a <i>Trifolium repens</i>
		<i>V. rigida</i>
		<i>W. pumila</i>

List D: Non-forage plants frequently encountered

Achyrocline alata, *Chuquiraga jussieui*, *Culcitium nivale*, *Huperzia crassa*, *Jamesonia goudotii*, *Loricaria thuyoides*

Notes:

^a Introduced species.

^b Species unique to this region.