Z. Säugetierkunde **63** (1998) 228–238
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ZEITSCHRIFT FÜR
SÄUGETIERKUNDE
INTERNATIONAL JOURNAL
OF MAMMALIAN BIOLOGY

Diet of the Mountain vizcacha (*Lagidium viscacia* Molina, 1782) and food availability in northern Patagonia, Argentina

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Receipt of Ms. 18. 08. 1997
Acceptance of Ms. 21. 11. 1997

Abstract

Diet of *Lagidium viscacia* and food availability were seasonally determined in La Payunia Protected Area through faecal analysis and point quadrat transects, respectively, in rocky elevations (shelter of mountain vizcachas) and adjacent plains. There were several evidences of selective feeding behaviour, besides the little similarity between diet and availability. The diet included only 33% of the plant genera occurring in the environment, the main dietary elements being three grasses (*Poa*, *Hordeum*, and *Stipa*) and one camephyte (*Acantholippia*). The proportion of grasses was significantly higher in the diet than in the environment, especially in the shrubby rocky elevations. The main food, *Poa*, was scarce to absent in rocky elevations, where *L. viscacia* lives, representing evidence of *L. viscacia*'s descending to plains for feeding. Similar behaviour was detected in *L. peruanum* and *Procavia johnstoni*, the rocky hyrax. The plains adjacent to rocky elevations in La Payunia were inhabited by the plains vizcacha, *Lagostomus maximus*, a closely related species to *L. viscacia.* Considerable similarity between both Chinchillidae diets suggests the possibility of competition, *Poa* being the key dietary element. Feeding behaviour of *L. viscacia* is focussed through the central place foraging theory, with rocky elevations as shelter against aerial predators.

Key words: Mountain vizcacha, Rodentia, feeding ecology, habitat use, plains vizcacha

Introduction

Mountain vizcachas (*Lagidium peruanum*, *L. viscacia*, and *L. wolffsohni*), chinchillas (*Chinchilla lanigera* and *C. brevicaudata*) and plains vizcacha (*Lagostomus maximus*) compose the family Chinchillidae (order Rodentia) (Woods 1993). The mountain vizcacha is locally named "chinchillón" (Spanish for big chinchilla), due to its similarity to chinchillas (0.5 kg, Mohlis 1983), but larger body size (1.5 kg, Redford and Eisenberg 1992). Of these three genera, *Lagidium* is the only one completely diurnal (Pearson 1948).

All Chinchillidae are cave-dwelling and gregarious; "chinchillón" and chinchilla live in mountainous lands (Rowlands 1974; Mann 1978), while plains vizcacha uses grasslands and scrubby deserts exclusively (Weir 1974; Llanos and Crespo 1952). *Lagidium* populations are present from 10° S (northern Peru) to 52° S (southern Chile and Argentina), in rocky environments of the Andean mountains and the Patagonian steppe (Rowlands 1974). Most populations – from 15° to 43° S – are currently attributed to *L. viscacia* (Redford and Eisenberg 1992). The natural fragmentation of the rocky habitat makes a metapopulation structure presumable, that could increase its survival ability (Walker et al. 1994).

Volcanic stone outcrops, where *L. viscacia* lives, characterize northern Patagonia. The irregular distribution of these outcrops is a determining factor of spatial differences in vegetation and soil (González Diaz 1972; Méndez 1971). The special interest of this environment is that it is located within the narrow contact belt between the distributions of "chinchillón" (Rowlands 1974) and plains vizcacha (Weir 1974).

The objectives of this study are to analyse the diet composition of *L. viscacia* in relation to food availability in a northern Patagonian environment, and to compare the diets of the two Chinchillidae species coexisting.

Material and methods

Study area and compared habitat characteristics

A study was conducted in La Payunia Reserve (Mendoza, Argentina, 36° 10′ S and 68° 50′ W, 2,500 km^2, elevation from 1,300 to 2,000 m). This area is located within the northernmost unit of the Patagonian Biogeographical Province (Cabrera and Willink 1980). The climate is of the continental desert type (Consejo Federal de Inversiones 1977). Mean seasonal temperature ranges from 6 °C in winter to 20 °C in summer, and annual precipitation averages 255 mm. The zone presents signs of strong past volcanic activity and of aeolian and hydric erosion. The resulting relief consists of gentle slopes and large plains, interrupted by basaltic steps and groups of hills (González Diaz 1972). The xerophyllous vegetation, with a moderate mean cover (58%, Puig et al. 1996), belongs to the Patagonic shrubby steppe. Almost all the shrubs are evergreen.

La Payunia was divided into habitats characterized by recurrent patterns of relief, soil, and vegetation, on the basis of 1:50,000 aerial photography, geological cartography (González Diaz 1972) and plant cartography (Martínez and Dalmasso 1993). Two different large habitats inhabited by "chinchillones" were selected: Huayquerías Coloradas (56 km^2) and Guadalosos (17 km^2). In both habitats we distinguished two microhabitats (plains and rocky elevations), in order to prove the exclusive use of rocky elevations by the "chinchillón". These elevations occupied 77 and 21%, respectively, of the mentioned habitat surfaces, and were constituted by outcrops of volcanic stone, and dominated by a shrubby stratum. Plains were characterized by a slightly rolling, sandy terrain, and a dominant herbaceous stratum.

Field and laboratory design

During 1991–1992 five samplings were carried out in two 10-ha zones, representative of the two habitats defined above. Samplings corresponded to winter (July), spring (October), summer (December and February), and autumn (May). Throughout the year, 32 faecal samples were collected and 18 to 29 transects were traversed in each sampling area to determine plant cover (as an estimator of food availability) by the point-quadrat method (Daget and Poissonet 1971). Each sample, composed of 10 fresh pellets of "chinchillones", was collected from a different group of faeces. The 30-m transects were randomly distributed within each sampling area, separated from each other by more than 100 m. The number of transects was slightly higher in microhabitats with a more complex topography. Faecal samples were analysed through the microhistological method of Baumgartner and Martin (1939), modified by Duci (1949), using plant reference material from La Payunia stored in the Ruiz Leal Herbarium (IADIZA, Argentina). Genus level, and species level when possible, were reached.

Statistical analyses

Only the 19 plant species consumed by the "chinchillón" at least on one occasion (33% of those recorded in the two habitats) were considered. Plant species were grouped in four categories according to their life form: grasses, forbs, camephytes, and phanerophytes. Succulents were not foraged.

Availability and diet diversities were estimated using the Shannon-Wiener function (H′, Colwell and Futuyma 1971). Kulczynski's coefficient (S_k, Oosting 1956) was applied to estimate the similarities between microhabitats. Significant differences in plant cover, diversity, and proportion of plant categories according to availability and diet among microhabitats were determined by the H statistic of Kruskall-Wallis ANOVA, and by the q statistic of the Tukey test for multiple comparisons (Zar 1984).

The association between relative frequencies of species occurrence in diet and availability was analysed applying the Spearman's rank correlation coeffcient (r_s, Siegel 1986). Dietary preferences were detected by the Ivlev's (1961) electivity index, and limits for the three ranks were fixed: (+0.3, +1.0) species eaten with preference (= species preferred), (–0.3, +0.3) species eaten with indifference, and (–1.0, –0.3) species eaten with avoidance (= species avoided). Dietary selectivity within each plant category was estimated using the index proposed by Feinsinger et al. (1981).

Results

Food availabilities and use of microhabitats

Rocky elevations were the dominant relief in Huayquerías Coloradas, while plains dominated in Guadalosos. Rocky elevations appeared in groups of considerable extension in both habitats (73 and 14 ha average, respectively), and groups were separated from each other by a mean distance of 158 and 292 m, respectively. There was a mean distance of 33 m among rocky elevations, within each group. "Chinchillones" had sedentary habits, and were usually observed sunbathing on the rocks. No "chinchillón" was ever observed in the wide plains.

Table 1. Mean composition of *L. viscacia* diet, average availability of consumed species in each type of microhabitat, and Ivlev's (1961) electivity index calculated with the availability in rocky elevations.

	Consumed plant species	Availability in:		Diet of *L. viscacia*	Electivity in rocky elevations
		rocky elevations	plains		
Ho	*Hordeum* spp.	0.0010	0.0006	0.1871	0.9899
Br	*Bromus* spp.	0.0009	0.0007	0.0174	0.9042
Po	*Poa* spp.	0.0113	0.0804	0.4244	0.9480
St	*Stipa* spp.	0.5300	0.2074	0.1366	–0.5902
Sp	*Sporobolus rigens*	0.0923	0.4323	0.0400	–0.3955
Pa	*Panicum urvilleanum*	0.0610	0.2732	0.0420	–0.1844
Ar	*Aristida* spp.	0.0006	0.0003	0.0314	0.9616
Se	*Setaria mendocina*	0.0007	0.0004	0.0074	0.8342
Di	*Digitaria californica*	0.0007	0.0004	0.0076	0.8285
	GRASSES TOTAL	0.6985	0.9958	0.8938	
Dr	*Draba* spp.	0.0001	0.0001	0.0005	0.5352
Le	*Lesquerella mendocina*	0.0003	0.0002	0.0050	0.8933
Ni	*Nicotiana spegazzini*	0.0002	0.0001	0.0020	0.8127
	FORBS TOTAL	0.0006	0.0004	0.0075	
Ve	*Verbena* spp.	0.0781	0.0033	0.0120	–0.7334
Ac	*Acantholippia seriphioides*	0.1431	0.0000	0.0771	–0.2998
At	*Atriplex lampa*	0.0003	0.0002	0.0024	0.7898
	CAMEPHYTES TOTAL	0.2216	0.0035	0.0915	
Ep	*Ephedra ochreata*	0.0771	0.0000	0.0026	–0.9348
Ly	*Lycium chilense*	0.0016	0.0003	0.0030	0.2987
Pr	*Prosopis* spp.	0.0002	0.0000	0.0002	–0.0508
Be	*Berberis grevilleana*	0.0004	0.0000	0.0014	0.5523
	PHANEROPHYTES TOTAL	0.0794	0.0003	0.0072	

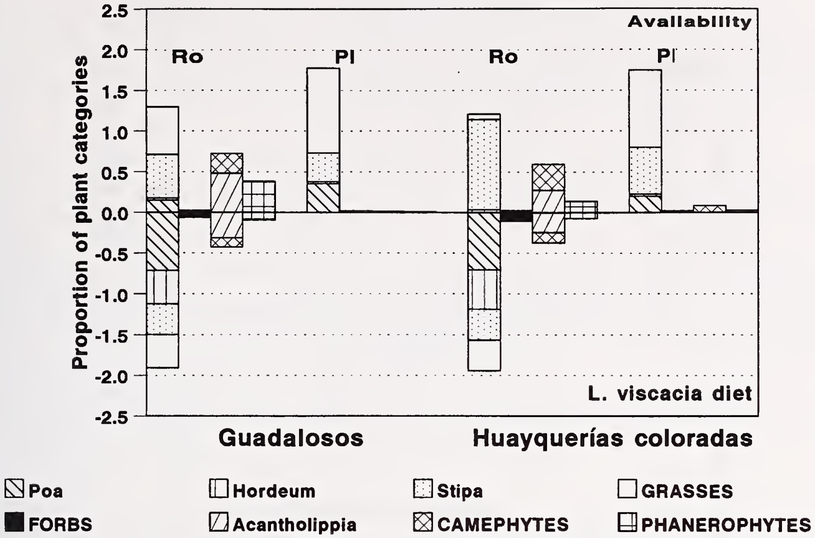

Fig. 1. Annual mean proportion of plant categories in food availability (upper half of the graph) and in *L. viscacia* diet (lower half) in each habitat. The availability in the two types of microhabitats (Pl: plains and Ro: rocky elevations) is considered separately. Different fillings allow to recognize the four main dietary species within their respective categories. Relative frequencies were transformed using the arcsin-square root to make differences between availability and diet more visible, especially for scarce categories.

Within the 19 plant species consumed by "chinchillón", the most available on rocky elevations were the grass *Stipa* and the camephyte *Acantholippia* (Tab. 1), which were representative of herbaceous and low shrubby strata, respectively (Fig. 1). The herbaceous stratum reached 99% of plant availability in adjacent plains, where availability of the grasses *Sporobolus* and *Panicum* surpassed that of *Stipa*, while *Acantholippia* was absent. The grass *Poa* was present in the plains but not in rocky elevations of Huayquerías Coloradas; in Guadalosos the proportion of *Poa* was higher in plains than in rocky elevations ($H = 46.6$ $p = 4.0$ e^{-10}). Forbs availability was very scarce in all microhabitats ($<0.1\%$), and higher values were obtained ($H = 69.0$ $p = 3.7$ e^{-14}) during summer and autumn (Fig. 2).

Plant cover in rocky elevations was significantly lower ($H = 41.9$ $p = 4.2$ e^{-9}) than in the adjacent plains (Tab. 2). Rocky elevations also differed from plains due to lower availability of grasses ($H = 52.4$ $p = 2.5$ e^{-11}) and higher availability of camephytes ($H = 40.6$ $p = 8.1$ e^{-9}). High relative abundance of *Stipa* in Huayquerías Coloradas rocky elevations (80%) determined a significantly lower diversity than in the other microhabitats ($H = 34.8$ $p = 1.4$ e^{-7}), and a moderate similarity with Guadalosos rocky elevations ($S_k = 0.41$). Huayquerias Coloradas rocky elevations significantly differed from those of Guadalosos, due to higher availability in the former of forbs ($H = 9.5$ $p = 0.024$) and grasses (particularly *Stipa* ($H = 49.2$ $p = 1.4$ e^{-10}) and *Hordeum* ($H = 8.7$ $p = 0.03$)), and lower availability of the camephyte *Acantholippia* ($H = 44.6$ $p = 1.1$ e^{-9}) and phanerophytes ($H = 41.9$ $p = 4.1$ e^{-9}).

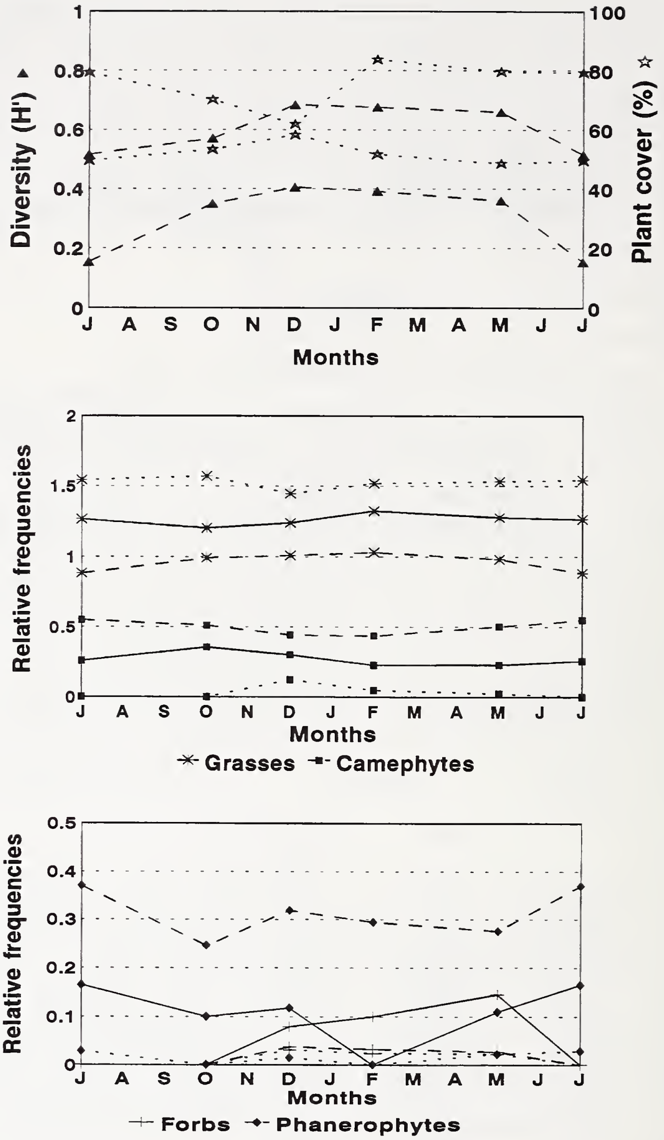

Fig. 2. Seasonal values of plant cover, diversity, and proportion of plant categories in the diet of *L. viscacia* (solid line) and in food availability in rocky elevations (dashed line) and plains (dotted line).

Diet of the "chinchillón"

Despite the dominance of shrubby species in rocky microhabitats, 9 of the 19 consumed genera were grasses (Tab. 1). These comprised most of the diet (89%), followed by camephytes (9%) (Fig. 1). Food niche breadth was high (Tab. 2) in spite of the low dietary richness.

The grasses *Poa*, *Hordeum*, and *Stipa*, and the camephyte *Acantholippia* were considered main elements in the diet of "chinchillón", taking into account their frequent use (dietary proportions higher than 5%) throughout the year. The rest of the grasses and the camephyte *Verbena* showed dietary proportions between 1 and 5%, and were classified as complementary elements. Forbs proportions increased in summer and autumn in the diet ($H = 14.04$ $p = 0.019$), as well as in availability (Fig. 2), and constituted seasonal dietary elements.

The use of *Stipa* was higher in early summer than in autumn ($H = 18.70$ $p = 0.001$), and the contrary occurred with *Poa* ($H = 10.97$ $p = 0.027$), without seasonal changes detected in their respective availabilities.

The similarity between diets obtained in Huayquerías Coloradas and in Guadalosos was very high ($S_k = 0.91$). Nevertheless, and according to differences in availability, a lower food niche breadth was obtained in Huayquerías Coloradas than in Guadalosos ($H = 4.88$ $p = 0.022$), with a higher proportion of grasses ($H = 3.91$ $p = 0.048$), particularly *Hordeum* ($H = 7.96$ $p = 0.004$), and a lower proportion of camephytes ($H = 6.86$ $p = 0.009$), particularly *Acantholippia* ($H = 9.60$ $p = 0.002$), in the former.

In spite of being present only in the plains, *Poa*, *Panicum*, and *Sporobolus* were included in the diet of "chinchillón" in Huayquerías Coloradas.

Dietary preferences

Similarity between diet and availability was moderate to low (Tab. 2), with significant associations for all the analysed cases, except for Huayquerías Coloradas rocky elevations. Diet was closer to rocky elevations plant availability in Guadalosos, but closer to plains availability in Huayquerías Coloradas. No significant difference was detected between diet and availability in Guadalosos rocky elevations, except for the forbs category. In both Huayquerías Coloradas microhabitats, differences were detected for grasses and camephytes, the most frequently consumed categories. The use of the main species – as a set – differed from the availability in all microhabitats.

The "chinchillón" preferred 67% of the grasses, the three forbs, the camephyte *Atriplex* and the phanerophyte *Berberis* (Tab. 1). Most of the preferred genera presented low proportions in the diet, except for the grasses *Poa*, *Hordeum*, *Aristida*, and *Bromus*. The camephyte *Acantholippia* and the grass *Panicum* were used with indifference, as well as the phanerophytes *Lycium* and *Prosopis* which presented low proportions. The coarse grasses *Stipa* and *Sporobolus*, the camephyte *Verbena* and the phanerophyte *Ephedra* were used with avoidance.

Selectivity within the available grasses was higher, but lower within camephytes, in Guadalosos rocky elevations than in the other microhabitats. Selectivity within the four frequently used species was highest in Huayquerías Coloradas rocky elevations (Tab. 2).

Comparison between *Lagidium viscacia* and *Lagostomus maximus* diets

Plains in both analysed habitats were occupied by plains vizcacha, whose diet was composed of 23 plant species in Huayquerías Coloradas and 21 species in Guadalosos, and dominated by grasses (95 and 97%, respectively) (Puig et al. 1997).

There was considerable similarity between "chinchillón" and plains vizcacha diets in Guadalosos as well as in Huayquerías Coloradas (0.70 and 0.68, respectively). Both Chinchillidae preferred the grass *Poa*, which was their major food (Fig. 3). In both cases *Stipa* was also intensively used, although with avoidance. There were no differences between "chinchillón" and plains vizcacha diets in the proportions of *Poa* ($Z = 1.23$ $p = 0.221$), *Aristida* ($Z = 1.64$ $p = 0.100$), *Nicotiana* ($Z = 0.77$ $p = 0.445$), and *Verbena* ($Z = 1.59$ $p = 0.112$).

The most important differences between "chinchillón" and plains vizcacha diets were due to a higher use of the camephyte *Acantholippia* ($Z = 7.43$ $p = 1.1\ e^{-13}$), and a lower use of the grass *Panicum* ($Z = 9.41$ $p = 1.0\ e^{-20}$) by the former.

Table 2. *L. viscacia* diet and food availability in Huayquerías Coloradas (HC) and Guadalosos (GU) segregating plains (pl) and rocky elevations (ro). Levels of significance in tests (p) appear in brackets. The group of main species (*Hordeum*, *Poa*, *Stipa* and *Acantholippia*) is analysed separately (Ho-Po-St-Ac).

	HC ro	HC pl	GU ro	GU pl
Availability of consumed species				
Plant cover	25.80	75.86	40.53	74.01
Diversity	0.317	0.474	0.783	0.541
Diet of *L. viscacia*				
Food niche breadth	0.779		0.786	
Comparison between diet and availability				
Similarity	0.220	0.252	0.373	0.343
Association	0.137	0.708	0.704	0.541
	(0.562)	(0.003)	(0.003)	(0.022)
Differences per category according to Mann-Whitney test				
Grasses	4.63	2.81	1.97	6.37
	(4 e^{-6})	(0.005)	(0.049)	(2 e^{-10})
Forbs	1.61	1.24	3.02	3.20
	(0.106)	(0.214)	(0.003)	(0.001)
Camephytes	4.37	2.21	1.20	6.16
	(1 e^{-5})	(0.027)	(0.231)	(8 e^{-10})
Fanerophytes	1.41	0.05	1.99	2.75
	(0.160)	(0.957)	(0.046)	(0.006)
Ho-Po-St-Ac	6.19	2.18	2.84	2.44
	(6 e^{-10})	(0.030)	(0.005)	(0.015)
Selectivity of plant categories by *L. viscacia*				
Grasses	0.392	0.401	0.605	0.482
Forbs	0.952	0.992	0.975	0.993
Camephytes	0.984	0.969	0.873	0.949
Fanerophytes	0.999	0.998	0.998	0.998
Ho-Po-St-Ac	0.643	0.641	0.865	0.861

Discussion

Several pieces of evidence suggest that "chinchillón" developed a selective feeding behaviour in La Payunia: it uses only 33% of the available plant genera; similarity between diets is higher than similarity between the respective availabilities; grass category comprises a significantly higher dietary proportion than that available in rocky elevations.

L. viscacia in a Subantarctic forest (Neuquén, Argentina, GALENDE 1995) also showed a considerable proportion of grasses (68%) in the diet, despite the lesser importance of the herbaceous stratum. Two of the three most frequently consumed grasses in Neuquén (*Stipa* and *Poa*) coincide with the most commonly eaten ones in La Payunia. Another grass, *Festuca orthophylla*, was found to be *L. viscacia*'s main food in northern Chile, in places where coarse grasslands surrounded rocky elevations, but the Juncaceae *Oxychloe andina* and *Distichia muscoides* were the most frequently eaten species when "bofedales" (high Andean moist lands) were accessible (PALMA 1985). *L. peruanum* diet in Perú (DÁVILA et al. 1982) differed from that of *L. viscacia* due to the inclusion of Cactaceae by the former.

The considerable dietary proportion and scarce availability of *Hordeum*, a grass with high nutritional value (DALMASSO pers. comm.), suggest that the "chinchillón" developed a remarkable search behaviour for its food.

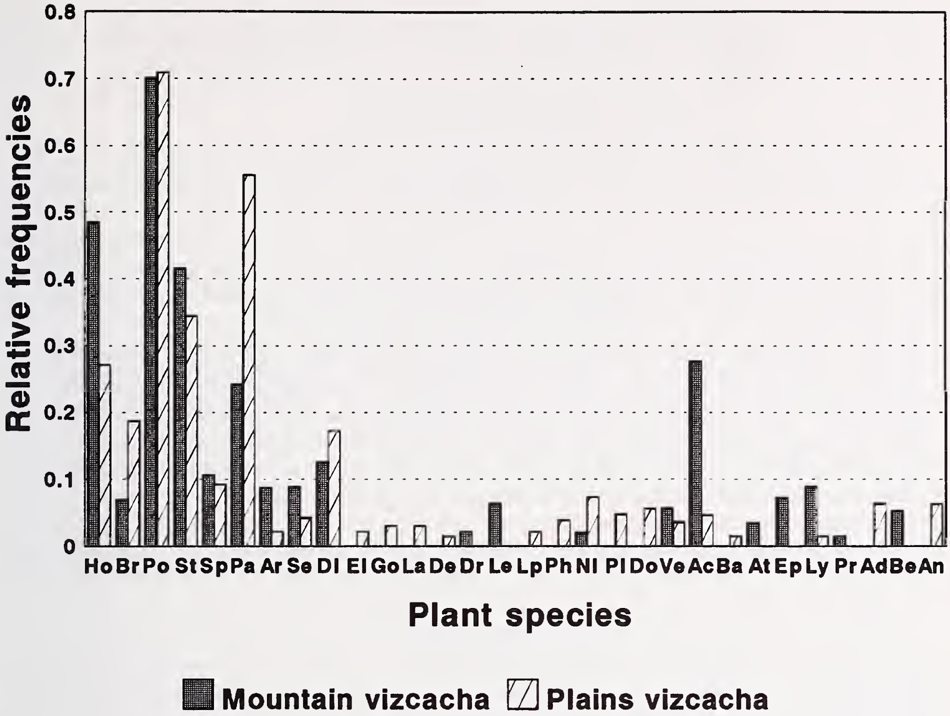

Fig. 3. Annual mean proportion of plant species eaten by *Lagidium viscacia* (identified in Tab. 1) or by *Lagostomus maximus* (El: *Elymus eranthus*, Go: *Gomphrena* sp., La: *Lappula redowsky*, Ph: *Phacelia artemisioides*, Pl: *Plantago patagonica*, Do: *Doniophyton* sp., Ba: *Baccharis darwini*, Ad: *Adesmia* spp., and An: *Anarthrophyllum rigidum*). Relative frequencies were transformed using the arcsin-square root.

“Chinchillón” uses with avoidance only those grasses characterized by roughness (*Stipa* and *Sporobolus*, WAINSTEIN and GONZÁLEZ 1962). In fact, dietary selectivity within grasses is higher where *Stipa* comprises almost all the availability of this category. The avoidance is only attenuated in early summer, when these grasses have buds. *Stipa* relevance and *Sporobolus* presence in the diet could be explained by the fact that these genera are the most available in rocky elevations and plains, respectively. A similar behaviour was observed in other herbivores coexisting with “chinchillón” in La Payunia, such as plains vizcacha (PUIG et al. 1997) and guanaco (*Lama guanicoe*) (PUIG et al. 1996).

The low quality of *Acantholippia* (DALMASSO pers. comm.) does not agree with its importance in the diet, taking into account that it was the only shrub included among the main dietary elements. The high use of this camephyte could be a consequence of its high availability in rocky elevations.

The predominance of grasses in “chinchillón” diet, taking into account the number of species as well as their proportions, is emphasized by the importance of the shrubby stratum in rocky elevations where the “chinchillón” lives. Moreover, the main dietary element (*Poa*) is eaten with preference throughout the year, despite its low availability in Guadalosos rocky elevations, and its null availability in those of Huayquerías Coloradas. The latter case can be considered as evidence of “chinchillón” reaching this grass by descending to plains, where the herbaceous stratum had a higher availability. A similar behaviour has also been observed by Hoeck (1975) in the hyrax *Procavia johnstoni* (Hyracoidea, Procaviidae) in Serengeti (Tanzania); this hyrax lives in rocky elevations, it has a strong preference for grasses and has to go outside the elevations for grazing. *Lagidium peruanum* of Caccachara (Perú) descends to feed as far as 70 m away from rock slides, to cirques with abundant vegetation (Pearson 1948).

The plains vizcacha lives in the wide plains of La Payunia where it builds large burrow systems, around which a loss of the plant cover occurs due to its feeding activity (Puig et al. 1997). Several dietary differences reflect the availability of their respective microhabitats, such as a higher proportion of *Panicum* (the most abundant grass in the plains) in plains vizcacha diet, and a higher proportion of *Acantholippia* (a camephyte characteristic of rocky elevations) in "chinchillón" diet. Nevertheless, there is considerable similarity between "chinchillón" and plains vizcacha diets.

Plains vizcachas do not visit rocky elevations (Puig et al. 1997) but "chinchillones" may graze in the plains close to the elevations; therefore, spatial segregation between these rodents does not seem to be complete. These two microhabitats present frequent contact surfaces in La Payunia, alternating in a mosaic-like design. Encounters between "chinchillón" (diurnal) and plains vizcacha (nocturnal) are not likely to occur, since their activity patterns differ. This would prevent any development of the behavioural mechanisms needed for spatial segregation.

Poa, occurring almost exclusively in plains, may be considered a key element in the diet. Potential competition for *Poa* between plains vizcachas and "chinchillones" needs to be evaluated, taking into account its limited availability in La Payunia.

Rocky elevations and dense high vegetation were indicated as suitable shelters for rodents whose key predators were aerial (Lima and Dill 1990). On the other hand, patches with low plant cover and good visibility were selected by rodents (Cassini 1991) and passerines (Lima et al. 1985) whose main predators were terrestrial. Both types of predators exist in La Payunia, and mountain lion (*Puma concolor*) has been identified as an important predator of plains vizcachas (Branch et al. 1994; Puig et al. 1997). "Chinchillón", with a lower body weight than plains vizcacha, might have mainly aerial predators, relying in the former anti-predator defence alternative. The rock hyrax *Procavia capensis*, whose habitat seems similar to that of "chinchillón", is one of black eagle's (*Aquila verreauxii*) main preys in Zimbabwe (Barry 1996). Pearson (1948) observed the Canidae culpeo (*Pseudalopex culpaeus*) pursuing mountain vizcachas among the rocks in Caccachara (Perú), but considered it a surprisingly unsuccessful predator of *L. viscacia.* Also Palma (1985) observed culpeos trying to prey on mountain vizcachas without success in northern Chile, and he considered the raptor gurney's buzzard (*Buteo poecilochrous*) a predator of *L. viscacia.* The diurnal Accipitridae black chested buzzard eagle (*Geranoaetus melanoleucus*) and red backer buzzard (*Buteo polyosoma*) were frequently observed in La Payunia, and may prey upon "chinchillones". Nevertheless, we have no evidence of "chinchillón" predation by canids or raptors.

If predation is mainly aerial, the visits to herbaceous plains would represent a considerable risk for the "chinchillón", suggesting a great importance of grasses, particularly *Poa*, in the diet. An increase in dietary selectivity according to distance from rocky elevations, as predicted by the central place foraging theory (Andersson 1981), has been described for North American pikas (*Ochotona princeps*, Lagomorpha, Ochotonidae) by Huntly et al. (1985). This could also be the case for "chinchillón".

Acknowledgements

We thank M. Medero for his assistance with the nutritional aspects, O. Pearson and S. Walker for their valuable suggestions, and R. González del Solar for his editorial suggestions. This study was supported by the Consejo Nacional de Investigaciones Cientificas y Técnicas of Argentina through a research grant. We thank the reviewers for their enriching suggestions.

Zusammenfassung

Nahrung des Bergvizcacha (Lagidium viscacia Molina, 1782) und Nahrungsquellen in Nordpatagonien, Argentinien

Nahrungszusammensetzung und Nahrungsquellen des Bergvizcacha im Naturschutzgebiet La Payunia wurden jahreszeitlich untersucht durch Exkrement- und Habitatanalysen in den felsigen Höhengebieten (Zufluchtsort der Bergvizcachas) und angrenzenden Ebenen: Es bestand ein geringer Zusammenhang zwischen Ernährung und Vielfalt der Nahrungsquellen. Nur 33% der vorkommenden Pflanzenarten wurden gewählt, hauptsächlich die drei Gräser *Poa*, *Hordeum* und *Stipa*, sowie die Chamephyte *Acantholippia*. Der Anteil aufgenommener Gräser war deutlich größer als deren Vorkommen in den öden Felsgebieten. *Poa*, die Hauptnahrung, kam spärlich vor oder fehlte in den felsigen Wohngebieten von *Lagidium viscacia.* Dieses läßt vermuten, daß die Tiere zur Nahrungsaufnahme in die Täler hinabsteigen. Ähnliches Verhalten wurde bei *Lagidium peruanum* und auch bei *Procavia johnstoni* festgestellt. Die, den Felsregionen vorgelagerten Ebenen werden von den Talvizcachas (*Lagostomus maximus*) bewohnt, einer den Bergvizcacha nahe verwandten Art. Die grundsätzlich ähnliche Ernährung dieser beiden Arten läßt ein Wettbewerbsverhalten vermuten. Für beide ist *Poa* Grundnahrungsmittel. Die felsigen Höhengebiete dienen der körperkleineren Art wahrscheinlich als Zufluchtsort vor Predatoren aus der Luft.

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Zeitschrift/Journal: Mammalian Biology (früher Zeitschrift für Säugetierkunde)

Jahr/Year: 1998

Band/Volume: 63

Autor(en)/Author(s): Puig Silvia, Videla Fernando, Cona Mónica I., Monge Susana, Roig Virgilio G.

Artikel/Article: Diet of the Mountain vizcacha {Lagidium viscacia Molina, 1782) and food availability in northern Patagonia, Argentina 228-238