

## *Lama guanicoe*

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Artiodactyla	Camelidae

**Common name** guanaco (English)

**Synonym**

**Similar species**

**Summary** The guanaco, *Lama guanicoe*, is a herbivorous, social ungulate that is the direct ancestor of the domestic llama. Native to South America, where it is the dominant ungulate of arid regions and scrubland, *L. guanicoe* is found in four out of the ten major habitat types found in South America - montane grasslands; desert and xeric shrublands; temperate forest; and grasslands, savannas and shrublands. *L. guanicoe* has a flexible social organisation, which, along with foraging behaviour and adaptable ecology contributes to its invasiveness.



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## Species Description

*Lama guanicoe* is a large (80 - 120 kg) social ungulate. It is an intermediate herbivore and is a versatile forager, being both a grazer and a browser. *L. guanicoe* has a flexible social organisation, with resource defence polygyny breeding system. Populations are known to be both migratory and sedentary. They can go for long periods without drinking water (with sufficient moisture from foraged material), and are able to drink saline and brackish water, including ocean surf. (Baldi *et al.* 2008; Franklin & Grigioni 2005; González *et al.* 2006).

## Notes

It was previously thought that there were four subspecies of *L. guanicoe*: *L. g. cacsilensis* (Lönnberg 1913), *L. g. guanicoe* (Müller 1776), *L. g. huanacus* (Molina 1782) and *L. g. voglii*. However, subsequent molecular studies gave evidence that there are only two subspecies of guanaco, *L. g. cacsilensis* and *L. g. guanicoe*. Peruvian *L. guanicoe* (and those from Northern Chile) are thought to be *L. g. cacsilensis*, with the remaining populations belonging to the *L. g. guanicoe* clade. (Baldi *et al.* 2008; González *et al.* 2006).

## Habitat Description

*L. guanicoe* the predominant ungulate in arid and semi-arid areas in South America, and is found in a variety of habitats, and although it prefers open areas. *L. guanicoe* can inhabit altitudes up to 4000 m above sea level and occupies four of the ten major habitats of South America: montane grasslands; desert and xeric shrublands; temperate forest; and grasslands, savannas and shrublands. Habitats can be characterised by extremes in seasonal weather, with cold to freezing temperatures, snow cover in winter, precipitation, and moderate to high winds. (Baldi *et al.* 2008; Franklin & Grigioni 2005; González *et al.* 2006).

## Management Info

**Preventative measures:** The Bureau of Rural Sciences, Australia, recently developed a risk assessment model ([Bomford, 2003](#)) which has been endorsed by the National Vertebrate Pests Committee and may be used as the basis for future exotic species import applications. To assign an exotic species to a threat category, three risk scores are calculated: the risk that (1) an escaped or released individual would harm people, (2) escaped or released individuals would establish a wild free-living population (3) the species would be a pest if a wild population did establish. These three risk scores are then used to assign the exotic species to one of four threat categories: extreme, serious, moderate or low.

*Lama guanicoe* has been assigned an **Extreme** threat category for Australia. These animals should not be allowed to enter, nor be kept in any State or Territory. (Special consideration may be given to scientific institutions on a case by case basis.) Any species that has not been assessed previously should be considered to be in the Extreme Threat Category and should be treated accordingly, until a risk assessment is conducted.

## Principal source:

**Compiler:** IUCN SSC Invasive Species Specialist Group (ISSG) with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

## Review:

**Publication date:** 2010-06-08

## ALIEN RANGE

[1] FALKLAND ISLANDS (MALVINAS)

## BIBLIOGRAPHY

7 references found for *Lama guanicoe*

### Management information

[IUCN/SSC Invasive Species Specialist Group \(ISSG\), 2010. A Compilation of Information Sources for Conservation Managers.](#)

**Summary:** This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.

Otley H, Munro G, Clausen A and Ingham B. 2008. Falkland Islands State of the Environment Report 2008. Falkland Islands Government and Falklands Conservation, Stanley.

### General information

[Baldi, B., Lichtenstein G., González, B., Funes, M., Cuéllar, E., Villalba, L., Hoces, D. & Puig, S. 2008. \*Lama guanicoe\*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.3](#)

**Summary:** Available from: <http://www.iucnredlist.org/apps/redlist/details/11186/0> [Accessed 24 March 2010]

Franklin, William L. & Melissa M. Grigione, 2005. The enigma of guanacos in the Falkland Islands: the legacy of John Hamilton. Journal of Biogeography (J. Biogeogr.) (2005) 32, 661-675

[González, A., Benito, R., Eduardo Palmas, Beatriz Zapata and Juan C. Marin, 2006. Taxonomic and biogeographical status of guanaco \*Lama guanicoe\* \(Artiodactyla, Camelidae\) Mammal Rev. 2006, Volume 36, No. 2, 157-178](#)

**Summary:** Available from: [http://captura.uchile.cl/jspui/bitstream/2250/5730/1/Gonzalez\\_Benito.pdf](http://captura.uchile.cl/jspui/bitstream/2250/5730/1/Gonzalez_Benito.pdf) [Accessed 24 March 2010]

[Integrated Taxonomic Information System \(ITIS\), 2010. \*Lama guanicoe\* \(Möller, 1776\)](#)

**Summary:** Available from: [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=625029](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=625029) [Accessed 9 December 2009]

[Puig, Silvia, Videla, Fernando, Cona, Mónica I. and Roig, Virgilio G. 2008. Habitat use by guanacos \(\*Lama guanicoe\*, Camelidae\) in northern Patagonia \(Mendoza, Argentina\), Studies on Neotropical Fauna and Environment, 43: 1, 1-9](#)