

*Rangifer tarandus* 

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Artiodactyla	Cervidae

**Common name** peary caribou (English), caribou (French), Norwegian reindeer (English), North American caribou (English), Eurasian reindeer (English), reno (Spanish)

**Synonym**

**Similar species**

**Summary**

Introduced intentionally to the subantarctic islands of Kerguelen and South Georgia, populations of *Rangifer tarandus* (reindeer) have had a significant impact on native vegetation of the islands due to grazing and trampling.



[view this species on IUCN Red List](#)

## Species Description

*Rangifer tarandus* is a social deer, and can form regional herds of 50,000 to 500,000 animals which band together during spring, although these herds are generally comprised of single-sex subgroups of 10 to 1,000 individuals (Hentonen & Tikhonov, 2008). *R. tarandus* is highly nomadic and may travel 5,000km in a year. Population densities are generally very sparse, about 0.5 animals per square kilometre, however during their migration; this may reach numbers of over 19,000 animals per square kilometre (Hentonen & Tikhonov, 2008).

## Lifecycle Stages

Usually one or two *Rangifer tarandus* calves are born, which wean at about 6 months and reach maturity 2.5-3.5 years. Individuals can live up to 20 years (Hentonen & Tikhonov, 2008). From birth to one year of age, both sexes double their crown to tail length and achieve 80 - 90% of their final adult size. Also during this period, both sexes increase their weight seven-fold (Leader-Williams & Ricketts, 1982(a)). Conception can occur from around 1.5 years of age.

## Habitat Description

*Rangifer tarandus* are adapted to their cold environments by having a very thick coat and by having short tails. They can smell lichen and other foodstuffs under snow which is a special adaptation. Their major predators are bears and wolves (Hentonen & Tikhonov, 2008). *R. tarandus*'s primary habitat is Arctic and sub-Arctic tundra, open montane and woodland habitats, and is often on high mountain slopes and in alpine zones of 2,300 - 3,000 meters. *R. tarandus* typically feeds on lichens, mosses herbs, ferns, grasses, and shoots and leaves of deciduous shrubs and trees (especially *Salix* spp. (willow) and *Betula* spp. (birch) (Hentonen & Tikhonov, 2008).

## Reproduction

In *Rangifer tarandus* rutting takes place around October. Young are born around May and June, with the gestation period being about 228 days (Hentonen & Tikhonov, 2008). During the reproduction period, males lose twice as much body tissue as females, as more energy is put into the development of antlers than in pregnancy and lactation (Leader-Williams & Ricketts, 1982(a)).



# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Rangifer tarandus*

## Nutrition

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## Principal source:

**Compiler:** Comité français de l'IUCN (IUCN French Committee) & IUCN SSC Invasive Species Specialist Group (ISSG)

## Review:

**Publication date:** 2010-10-04

## ALIEN RANGE

[1] ARGENTINA

[1] FALKLAND ISLANDS (MALVINAS)

[1] SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS

[1] CHILE

[3] FRENCH SOUTHERN TERRITORIES

[1] UNITED STATES

**Red List assessed species 2: EN = 1; LC = 1;**

[Microtus abbreviatus](#) LC

[Sorex pribilofensis](#) EN

## BIBLIOGRAPHY

32 references found for *Rangifer tarandus*

### Management information

[Bell, Cameron M. & Robert A. Dieterich, 2010. Translocation of reindeer from South Georgia to the Falkland Islands. \*Rangifer\*, 30 \(1\), 2010](#)

**Summary:** Available from: <http://www.ub.uit.no/baser/septentrio/index.php/rangifer/article/viewFile/247/237> [Accessed May 2010]

Chapius, J.L., Bousset P. & Barnaud G. 1994. Alien mammals, impacts and management in the French subantarctic islands. *Biological Conservation* 67: 97- 104.

Iriarte, J. Agustin; Lobos, Gabriel A.; Jaksic, Fabian M., 2005. Invasive vertebrate species in Chile and their control and monitoring by governmental agencies. *Revista Chilena de Historia Natural*. 78(1). MAR 05. 143-154.

[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.

Klein, David R., 1987. Vegetation Recovery Patterns following Overgrazing by Reindeer on St. Matthew Island. *Journal of Range Management*, Vol. 40, No. 4 (Jul., 1987), pp. 336-338

Leader-Williams, N., 1980. Population Dynamics and Mortality of Reindeer Introduced into South Georgia. *The Journal of Wildlife Management*, Vol. 44, No. 3 (Jul., 1980), pp. 640-657

Leader-Williams, N and C. Ricketts, 1982b. Growth and Condition of Three Introduced Reindeer Herds on South Georgia: The Effects of Diet and Density. *Holarctic Ecology*, Vol. 5, No. 4 (Oct., 1982), pp. 381-388

Leader-Williams, N., D.W.H. Walton, and P.A. Prince, 1989. Introduced reindeer on South Georgia: A management dilemma. *Biological Conservation* Volume 47, Issue 1, 1989, Pages 1-11

Lebouvier, M.; Frenot, Y., 2007. Conservation and management in the French sub-Antarctic islands and surrounding seas. *Papers & Proceedings of the Royal Society of Tasmania*. 141(Part 1). NOV 2007. 23-28.

McCann, T.S. 1987. Further range expansion of introduced reindeer *Rangifer tarandus* on South Georgia. *British Antarctic Survey Bulletin* 76: 95-98.

Moen, Jon and Hector MacAlister, 1994. Continued range expansion of introduced reindeer on South Georgia. *Polar Biology* Volume 14, Number 7 / October, 1994

[Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.](#)

**Summary:** This database compiles information on alien species from British Overseas Territories.

Available from: <http://www.jncc.gov.uk/page-3660> [Accessed 10 November 2009]

## General information

Chapuis, J., Boussès, P., & Barnaud, G. 1994. Alien mammals, impact and management in the French Subantarctic Islands. *Biological Conservation*, 67, 97-104.

**Summary:** Cet article présente la situation actuelle et les impacts des populations introduites de mammifères dans les îles subantarctiques françaises. Les moyens de contrôle en place ou planifiés sont également présentés.

Chapuis, J.L. & Boussès, P. 1987. Relations animal-végétation : conséquences des introductions de mammifères phytophages dans l'archipel de Kerguelen. *Actes du colloque sur la Recherche française dans les Terres Australes*. 269-278

**Summary:** L'histoire des introductions de 4 mammifères herbivores, l'évolution de leurs populations, et leurs impacts sur les communautés végétales et animales sont présentés et discutés. Des moyens de contrôle sont envisagés pour permettre la restauration de ces milieux.

Chung, C. H. 1993. Thirty years of ecological engineering with *Spartina* plantations in China. *Ecological Engineering* 2: 261-289.

**Summary:** A review of *Spartina* plantations in China and their effects on coastal morphology, soils, animals and human beings.

Cook, S. Poncet, A.P.R. Cooper, D.J. Herbert and D. Christie Glacier retreat on South Georgia and implications for the spread of rats. *Antarctic Science*, Published online by Cambridge University Press 17 Feb 2010 doi:10.1017/S0954102010000064

Gray, A. J. and Benham, P. E. M. 1990. *Spartina anglica*: A Research Review. ITE Research Publication No. 2, Natural Environment Research Council and HMSO, London.

**Summary:** Contains various papers about *S. anglica* biology, competitive ability against *Puccinellia maritima*, use as biofuel, and the effect on bird populations.

[Henttonen, H. & Tikhonov, A. 2008. \*Rangifer tarandus\*. In: IUCN 2010. IUCN Red List of Threatened Species](#)

**Summary:** Available from: <http://www.iucnredlist.org/apps/redlist/details/29742/0> [Accessed May 2010]

[ITIS \(Integrated Taxonomic Information System\), 2008. Online Database \*Rangifer tarandus\* \(Linnaeus, 1758\)](#)

**Summary:** An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.

Available from: [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=180701](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=180701) [Accessed 12 March 2008]

[Jaksic, M. Fabian, 1998. Vertebrate invaders and their ecological impacts in Chile. \*Biodiversity and Conservation\* 7, 1427-1445 \(1998\)](#)

**Summary:** Available from: <http://www.bio.puc.cl/caseb/casebpdf/InvadersChile-C&BIODIVERSITY.pdf> [Accessed May 2010]

Klein, David R.; Shulski, Martha, 2009. Lichen Recovery Following Heavy Grazing by Reindeer Delayed by Climate Warming. *Ambio*. 38(1). FEB 2009. 11-16.

[Leader-Williams, N., 1985. Chapter 6b: The Sub-Antarctic Islands -Introduced Mammals. in \*Key Environments Antarctica\* \(Ed\) W. N. Bonner And D. W. H. Walton. Published in Collaboration with the International Union for Conservation of Nature and Natural Resources](#)

**Summary:** Available from: [https://www.kent.ac.uk/dice/publications/KeyEnvs\\_IMs.pdf](https://www.kent.ac.uk/dice/publications/KeyEnvs_IMs.pdf) [Accessed May 2010]

Leader-Williams, N. 1988. Reindeer on South Georgia: the ecology of an introduced population. Cambridge University Press, Cambridge. 319pp.

Leader-Williams, N. and Ricketts, C. 1982a. Seasonal and sexual patterns of growth and condition of reindeer introduced into South Georgia. *Oikos* 38: 27-39.

Leader-Williams, N., R. I. L. Smith and P. Rothery, 1987. Influence of Introduced Reindeer on the Vegetation of South Georgia: Results From a Long-Term Exclusion Experiment. *Journal of Applied Ecology*, Vol. 24, No. 3 (Dec., 1987), pp. 801-822

Leader-Williams, N., Tessa A. Scott, R. M. Pratt, 1982. Forage Selection by Introduced Reindeer on South Georgia, and Its Consequences for the Flora. *Journal of Applied Ecology*, Vol. 18, No. 1 (Apr., 1981), pp. 83-106

Lesel, R. 1967. Contribution à l'étude écologique de quelques mammifères importés aux îles Kerguelen. *TAAF*, 38 : 3-40

[Novillo, Agustina & Ricardo A. Ojeda, 2008. The exotic mammals of Argentina. \*Biol Invasions\* DOI 10.1007/s10530-007-9208-8](#)

**Summary:** Available from: <http://www.cricyt.edu.ar/institutos/iadiza/ojeda/pdf/Invaders%20Argentina.pdf> [Accessed May 2010]

Nowak, R. 1991. *Walker's Mammals of the World*. Baltimore: The Johns Hopkins University Press.

Pascal, M, 1983. Introduction of mammalian species on the Kerguelen Archipelago (South Indian Ocean). Impact of exotic species on the island milieu. *C. R. Seances Soc. Biogeography*. Vol. 59, no. 2. 1983.

**Summary:** This paper is devoted to the modalities of introduction of alien mammals in Kerguelen archipelago (*Ovis a. aries*, *O. a. musimon*, *Rangifer tarandus*, *Rattus rattus*, *Mus musculus*, *Oryctolagus cuniculus*, *Felis catus*). Knowledge about the impact of these species on the insular ecosystem is summarized. Suggestions are made to attempt to solve some problems in natural conservancy. The authors insist on the fact that this damageable introduction constitutes field experiences and that it must be used to try to understand problems in evolution and adaptation.

Pratt, R. M. and R. I. Lewis Smith, 1982. Seasonal trends in chemical composition of reindeer forage plants on South Georgia. *Polar Biology*. Volume 1, Number 1 / March, 1982

Vogel, Michael; Herman Remmert and Ron I. Lewis Smith, 1984. Introduced Reindeer and Their Effects on the Vegetation and the Epigeic Invertebrate Fauna of South Georgia (subantarctic). *Oecologia*, Vol. 62, No. 1 (1984), pp. 102-109