

# **GLOBAL INVASIVE SPECIES DATABASE**

FULL ACCOUNT FOR: Lepus europaeus

Lepus europaeus

KingdomPhylumClassOrderFamilyAnimaliaChordataMammaliaLagomorphaLeporidae

**Common name** 

brown hare (English), European brown hare (English), European hare (English), liebre Europea (Spanish), lièvre d'Europe (French)

**System:** Terrestrial

**Synonym** 

Similar species

**Summary** 

Lepus europaeus is a herbivorous mammal belonging to the family Leporidae, and is commonly known as the European hare or brown hare. It has been introduced from its native range of Europe to many other countries and islands. L. europaeus is highly adaptable and is able to survive in a varied range of habitats, though it primarily invades agricultural areas, grasslands, scrub and shrublands and disturbed areas. It has been known to hybridise with native hare species in some areas, threatening genetic integrity and native species survival.



view this species on IUCN Red List

#### **Notes**

There are 15 subspecies: Lepus europaeus caspicus, L. e. connori, L. e. creticus, L. e. cyprius, L. e. cyrensis, L. e. europaeus, L. e. hybridus, L. e. judeae, L. e. karpathorum, L. e. medius, L. e. occidentalis, L. e. parnassius, L. e. ponticus, L. e. rhodius, L. e. syriacus, and L. e. transsylvanicus (Hoffmann and Smith 2005).

Climate change and the European hare: In the Australian Alps, foxes (Vulpes vulpes), hares (Lepus europaeus), house mice (Mus musculus), feral horses (Equus caballus) and weeds have all increased their

presence at higher altitudes most likely due to changes in climate (Green and Pickering 2002). Climate change models predict that summers in Ireland will become drier and warmer, giving rise to conditions favouring *L. europaeus* (increased arable activity, creating a more heterogenous landscape).

## **Lifecycle Stages**

Lepus europaeus averages three litters/yr, but can vary from one to four litters/yr (Macdonald and Barrett 1993). Litter size can vary with respect to the season, smaller litters produced earlier in the season and larger litters later (Macdonald and Barrett 1993). The birth weight of *L. europaeus* is approximately 100 g (Macdonald and Barrett 1993). Gestation is 41-42 days and reproduction occurs year round (Macdonald and Barrett 1993). Average life expectancy for this hare is 1.04 years, with a maximum age span in the wild of 12.5 years recorded in Poland (Macdonald and Barrett 1993). Females reach maturity around seven to eight months and male at six months (Macdonald and Barrett 1993). The total length of L. europaeus is 48.0-70.0 cm (Macdonald and Barrett 1993) (from Smith & Johnston 2008)

#### **Management Info**

Methods by which to monitor *L. europaeus* population and impacts in New Zealand have been studied with the view of setting target densities for control operations (<u>Parkes 2001</u>). Methods for density estimation investigated included faecal pellet counts, spotlight count, and line transect estimates. Impact estimation methods included plant biomass estimation of biomass, and species composition and biomass.



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## **Pathway**

Lepus europaeus has been introduced as a game species extensively to countries across the globe (Smith & Johnston 2008).

**Principal source:** Smith, A.T. & Johnston, C.H. 2008. Lepus europaeus. In: IUCN 2010. IUCN Red List of Threatened Species.

**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:**

**Pubblication date: 2010-06-08** 

#### **ALIEN RANGE**

[1] ARGENTINA[2] AUSTRALIA[1] BARBADOS[1] BRAZIL[1] CANADA[1] CHILE[1] FALKLAND ISLANDS (MALVINAS)[1] IRELAND[1] NEW ZEALAND[1] NORWAY[1] PARAGUAY[1] PERU[1] REUNION[1] RUSSIAN FE

[1] REUNION [1] RUSSIAN FEDERATION [1] SWEDEN [2] UNITED KINGDOM [1] UNITED STATES [1] URUGUAY

Red List assessed species 2: VU = 1; LC = 1;

Lepus timidus **LC**Nestor notabilis **VU** 

## **BIBLIOGRAPHY**

16 references found for Lepus europaeus

#### **Managment information**

Cossios E. Daniel, 2010. Vertebrados naturalizados en el Per : historia y estado del conocimiento (Naturalised vertebrates in Peru: history and state of knowledge) Rev. peru. biol. 17(2): 179 - 189 (Agosto 2010)

Summary: Available from: http://sisbib.unmsm.edu.pe/BVrevistas/biologia/v17n2/pdf/a07v17n2.pdf [Accessed 23 February 2011] de la Sancha, Nov U., Hugo Mantilla-Meluk, Fredy Ramirez, Pastor Perez, Nathalia Mujica, Angelica Troche, Marcela Gimenez, 2009. Mammalia, Lagomorpha, Leporidae, Lepus europaeus, Pallas, 1778: Distribution extension, first confirmed record for Paraguay Check List 5(3): 428v432, 2009

Summary: Available from: http://www.checklist.org.br/getpdf?NGD050-09 [Accessed 26 July 2010]

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.

Parkes, J., 2001. Methods to monitor the density and impact of hares (*Lepus europaeus*) in grasslands in New Zealand. DOC Science Internal Series 8. Department of Conservation. Wellington 13p

**Summary:** Available from: http://www.doc.govt.nz/upload/documents/science-and-technical/DSIS8.pdf [Accessed 26 July 2010] Reid, Neil, 2010. European hare (*Lepus europaeus*) invasion ecology: implication for the conservation of the endemic Irish hare (*Lepus timidus hibernicus*) Biol Invasions DOI 10.1007/s10530-010-9849-x

#### General information

BirdLife International 2008. Nestor notabilis. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2

**Summary:** Available from: http://www.iucnredlist.org/apps/redlist/details/106001410/0 [Accessed 16 December 2012] Global Invasive Species Database (GISD) 2025. Species profile *Lepus europaeus*. Available from: https://www.iucnqisd.org/qisd/species.php?sc=1643 [Accessed 02 September 2025]



## **GLOBAL INVASIVE SPECIES DATABASE**

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Flux, E. C. John, 1965. Timing of the breeding season in the hare *Lepus europaeus* Pallas and rabbit *Oryctolagus cuniculus*. Mammalia. Volume 29, Issue 4, Pages 557�562

Green, K. and Pickering, C.M. 2002. A scenario for mammal and bird diversity in the Australian Snowy Mountains in relation to climate change. Mountain Biodiversity: a Global Assessment. C. Koerner and E. M. Spehn (eds). London, Parthenon Publishing.

Hoffmann, R. S. and Smith, A. T. 2005. Order Lagomorpha. In: D. E. Wilson and D. M. Reeder (eds), Mammal Species of the World, pp. 185-211. Johns Hopkins University Press, Baltimore, Maryland, USA.

Integrated Taxonomic Information System (ITIS), 2010. Lepus europaeus Pallas, 1778

**Summary:** Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\_topic=TSN&search\_value=552501 [Accessed 20 September 2010]

Jaksic, Fabian & Walton, Agustín & Jiménez, Jaime E. & Martinez, David R.. (2002). Invaders without frontiers: Cross-border invasions of exotic mammals. Biological Invasions. 4. 10.1023/A:1020576709964.

Neronov, Valery M., Ludmila A. Khlyap, Vladimir V. Bobrov and Andrey A. Warshavsky, 2008. Alien species of mammals and their impact on natural ecosystems in the biosphere reserves of Russia. Integrative Zoology 2008; 3: 83�94

Reid, Neil & Ian W. Montgomery, 2007. Is the naturalisation of the Brown Hare in Ireland a threat to the Endemic Irish Hare? Biology and Environment: Proccedings of the Royal Irish Academy, Vol. 107B. No 3, 129 138 (2007)

Summary: Available from: http://www.qub.ac.uk/sites/Quercus/Filestore/Filetoupload,134057,en.pdf [Accessed 26 July 2010]

Smith, A.T. & Johnston, C.H. 2008. Lepus europaeus. In: IUCN 2010. IUCN Red List of Threatened Species.

Summary: Available from: http://www.iucnredlist.org/apps/redlist/details/41280/0/full [Accessed 26 July 2010]

Varnham, K 2006. Non-native species in UK Overseas Territories: a review JNCC Report No. 372

Summary: Available from: http://www.caymanbiodiversity.com/wp-content/uploads/2007/10/jncc372\_web.pdf [Accessed 9 April 2010]