

Erinaceus europaeus  [正體中文](#)

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Lipotyphla	Erinaceidae

Common name European hedgehog (English), western European hedgehog (English), brown-breasted hedgehog (English), igel (German), igelkott (Swedish), herisson (French), riccio (Italian), erizo (Spanish), Europäischer Igel (German)

Synonym

Similar species

Summary

Erinaceus europaeus (hedgehogs) threaten native invertebrates, reptiles, amphibians and ground-nesting bird nests through predation. In areas where hedgehogs have been introduced, they also compete with native insectivores. Hedgehogs are native to Western Europe and have been introduced to New Zealand and to island groups within their native range where they did not naturally occur.



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

Species Description

Small brownish nocturnal mammal (adults 600-1500g) with a distinctive coat of spines covering the back and crown of the head. The front paws are powerful and adapted for digging while the hind paws are long and narrow. *Erinaceus europaeus* (hedgehogs) typically roll into a ball when disturbed, this is enabled by a powerful dorsal muscle called the musculus orbicularis. Overall they are darker in appearance than *E. concolor* which usually has a white patch of fur over its chest. Droppings are cylindrical in shape, about 30-50mm long and often contain insect exoskeleton fragments. They are stained dark green by bile and are pointed at one end (Jones and Sanders 2005).

Lifecycle Stages

Gestation period of 35 +/- 4 days. At 3-4 weeks old the young first explore outside the nest. At 5-6 weeks old they become fully weaned and independent. Average life expectancy in the wild is about 3-4 years (6-8 years max.) (Jones and Sanders, 2005).

Habitat Description

Prefer dry well drained sites for nests. Hibernates during extended cold weather (e.g. winter, or when mean ground temperatures reach 10-11 degrees C). Males emerge from, and enter hibernation earlier than females. New Zealand lacks natural predators such as large owls, badgers and foxes and has milder winters than Europe, which contributes to a longer breeding season and better yearly survival.

Reproduction

Placental. Sexual. Completely promiscuous, one female may mate with five or more males. Female hedgehogs have a succession of oestrus cycles throughout the breeding season. No postpartum oestrus (Jones and Sanders, 2005).



Nutrition

Invertebrates dominate the hedgehog diet, especially beetles and caterpillars which appear to contribute most to dietary energy. It has been estimated that hedgehogs can eat around 160g of invertebrates per day. Otherwise, hedgehog diet is varied, and can depend on local conditions and prey availability, indicating an opportunistic feeding behaviour (Jones and Sanders, 2005). This doesn't mean they are unselective in their diet as certain prey species are preferred over other equally abundant species. For example, one hedgehog stomach examined in New Zealand contained over 283 weta (*Hemiandrus*) legs (Jones *et al.* 2005). They also are known to eat bird eggs and chicks, carrion, and small reptiles and frogs (Jones and Sanders, 2005).

General Impacts

Erinaceus europaeus (hedgehogs) prey on invertebrates and small vertebrates such as lizards and bird eggs and chicks. Hedgehogs are known to eat large amounts of individual prey types meaning they can have significant impacts on small localised populations of prey items (Jones *et al.* 2005). Female hedgehogs were three times more likely to have eaten lizards than males in a New Zealand study (Jones *et al.* 2005). In the Uist group shorebird numbers declined by 39% in areas where hedgehogs are present between 1983 and 2000 (Jackson *et al.* 2004). Up to 60% of nests of some wader species on South Uist were destroyed by hedgehogs in the 1996 and 1997 breeding seasons (Jackson and Green, 2000). Hedgehogs may act as vectors for some human and stock diseases. However, they are unable to maintain a reservoir for bovine Tb and most diseases and parasites are host specific (Jones and Sanders, 2005). Hedgehogs are known to compete with native insectivores, such as the kiwi in New Zealand (where competition for nest sites is also an issue) and two shrew species in Germany (Jones and Sanders, 2005; Guntram G. Meier, pers.comm 2006).

Management Info

Erinaceus europaeus (hedgehogs) are often caught as by-catch in many predator control programmes throughout New Zealand without apparently reducing long term population numbers. May be less susceptible to poisoning than other mammals. Cameron *et al.* (2002) investigated which trapping variables led to increased hedgehog catch success in New Zealand braided river ecosystems. They found that most hedgehogs were caught on pathways and on river terraces. Highest success rates were recorded when the trap plate was hazed with vegetation rather than left bare or covered with substrate. Please follow this link to view details of the Doc trapping system setting guidelines for [Doc 150](#) and [Doc 250](#). Doc 150 and Doc 250 have passed 'draft' NAWAC (National Animal Welfare Advisory Committee) guidelines as humane kill traps for stoats, rats and hedgehogs. In the Uist group in Scotland hedgehogs are live captured using a variety of methods (spot-lamping, live-trapping and searching with dogs) and then released on the mainland (SNH, 2008). Animal rights activists in the UK have prevented lethal control methods being used to remove hedgehogs from these important areas for breeding wading birds.

Pathway

Erinaceus europaeus (hedgehogs) were introduced to Western Isles in Scotland, UK to control slugs and snails in gardens. Introduced by acclimatisation societies.

Principal source:

Compiler: IUCN SSC Invasive Species Specialist Group

Updates 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: 2010-09-15

ALIEN RANGE

Global Invasive Species Database (GISD) 2024. Species profile *Erinaceus europaeus*. Available from: <https://iucngisd.org/gisd/species.php?sc=176> [Accessed 24 November 2024]



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Erinaceus europaeus*

[1] GERMANY
[6] NEW ZEALAND
[3] UNITED KINGDOM

[1] ISLE OF MAN
[1] REUNION

Red List assessed species 18: CR = 2; EN = 4; VU = 2; NT = 3; LC = 7;

[Apteryx australis](#) **VU**
[Charadrius alexandrinus](#) **LC**
[Crocodyrus leucodon](#) **LC**
[Himantopus novaezelandiae](#) **CR**
[Limosa limosa](#) **NT**
[Oligosoma ottagense](#) **EN**
[Somateria mollissima](#) **LC**
[Sterna albifrons](#) **LC**
[Sterna hirundo](#) **LC**

[Apteryx owenii](#) **NT**
[Charadrius obscurus](#) **EN**
[Gallirallus australis](#) **VU**
[Larus bulleri](#) **EN**
[Oligosoma acrinusum](#) **NT**
[Prodontria lewisi](#) **CR**
[Sorex minutus](#) **LC**
[Sterna albostrata](#) **EN**
[Sterna paradisaea](#) **LC**

BIBLIOGRAPHY

26 references found for *Erinaceus europaeus*

Management information

[Bomford, M., 2003. Risk Assessment for the Import and Keeping of Exotic Vertebrates in Australia. Bureau of Rural Sciences, Canberra.](#)

Summary: Available from: <http://www.feral.org.au/wp-content/uploads/2010/03/PC12803.pdf> [Accessed August 19 2010]

[Brockie, R. E. 1990. European hedgehog. The Handbook of New Zealand Mammals. King, C. M. \(ed.\) Oxford University Press: 99-113.](#)

Summary: Biology of hedgehogs, with a New Zealand focus.

[Cameron, B.G., van Heezik, Y., Maloney, R.F., Seddon, P.J. and Harraway, J.A. 2005. Improving predator capture rates: analysis of river margin trap site data in the Waitaki Basin, New Zealand. New Zealand Journal of Ecology 29: 117-128.](#)

Summary: Study investigating the influence of different trap setting factors on trap success for a number of different predator species

[Department of Conservation \(DOC\), undated. Predator traps. Doc trapping systems Doc 150](#)

Summary: Available from: <http://www.doc.govt.nz/upload/405/Doc150-Predator-Trap.pdf> [Accessed 18 February 2008]

[Department of Conservation \(DOC\), undated. Predator traps. Doc trapping systems Doc 250](#)

Summary: Available from: <http://www.doc.govt.nz/upload/documents/conservation/threats-and-impacts/animal-pests/doc250-predator-trap.pdf> [Accessed 18 February 2008]

[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.

[Jackson, D. B. 2001. Experimental removal of introduced hedgehogs improves wader nest success in the Western Isles, Scotland. Journal of Applied Ecology 38: 802-812.](#)

Summary: Experiment looking at removal of hedgehogs from bird nesting areas - examining the effectiveness of fences, and the effect on bird breeding success.

[Jackson, D.B. 2006. The breeding biology of introduced hedgehogs \(*Erinaceus europaeus*\) on a Scottish Island: lessons for population control and bird conservation. Journal of Zoology, 268: 303-314.](#)

Summary: This article contains information about the breeding biology of hedgehogs on an island they have been introduced to close to their native range. It also contains advice on when to trap hedgehogs and animal welfare implications that should be considered before trapping hedgehogs.

[Jones, C., Moss, K. and Sanders, M. 2005. Diet of hedgehogs \(*Erinaceus europaeus*\) in the upper Waitaki Basin, New Zealand: implications for conservations. New Zealand Journal of Ecology 29: 29-35.](#)

Summary: Detailed information about hedgehog diet in an area of high importance for rare endemic New Zealand birds

[Jones, C. & Sanders, M.S. 2005. Hedgehog. In: The Handbook of New Zealand Mammals \(ed C.M. King\) pp. 81-94. Oxford University Press, Auckland.](#)

Summary: In depth account of hedgehog biology in New Zealand with further information about hedgehogs in their native range in Europe.

[Scottish Natural Heritage \(SNH\), 2008. The Uist Wader Project](#)

Summary: Scottish Natural Heritage site containing information about the project to remove hedgehogs from the Uist Islands. Also contains links to useful factsheets about hedgehogs biology and methods of removing and excluding hedgehogs using different trapping and fencing techniques.

Available from: <http://www.snh.org.uk/scottish/wisles/waders/default.asp> [Accessed 26 January 2008]

[Scottish Natural Heritage \(SNH\), Undated. The Uist Wader Project Factsheet Number 3 All about Uist hedgehogs](#)

Summary: Hedgehog factsheet

Available from: <http://www.snh.org.uk/pdfs/news/nw-uwp03.pdf> [Accessed 26 January 2008]



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Erinaceus europaeus*

Thomsen, Terry; Mike Bowie & Graham Hickling, 2000. The potential for eradication of hedgehogs (*Erinaceus europaeus*) from Quail Island, Banks Peninsula. Canterbury Conservancy, Department of Conservation and the Quail Island Restoration Trust 19 February 2000

Summary: Available from: http://researcharchive.lincoln.ac.nz/dspace/bitstream/10182/718/1/wmr_20.pdf [Accessed 21 June 2010]

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

BirdLife International 2007a. *Himantopus novaezelandiae*. In: IUCN 2007. 2007 IUCN Red List of Threatened Species

Summary: Available from: <http://www.iucnredlist.org/apps/redlist/details/144083/0> [Accessed 12 March 2010]

BirdLife International 2007b. *Sterna albobriata*. In: IUCN 2007. 2007 IUCN Red List of Threatened Species

Summary: Available from: <http://www.iucnredlist.org/apps/redlist/details/144266/0> [Accessed 12 March 2010]

ITIS (Integrated Taxonomic Information System), 2005. Online Database *Erinaceus europaeus*

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.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Erinaceus+europaeus&p_format=&p_ifx=plgt&p_lang=
[Accessed March 2005]

Jackson, D.B. and Green, R.E. 2000. The importance of the introduced hedgehog (*Erinaceus europaeus*) as a predator of the eggs of waders (Charadrii) on machair in South Uist, Scotland. *Biological Conservation* 93: 333-348.

Summary: Provides information about hedgehog densities on South Uist and the effect hedgehog foraging has had on nests of wading birds

Jackson, D.B., Fuller, R.J. and Campbell, S.T. 2004. Long-term population changes among breeding shorebirds in the Outer Hebrides, Scotland, in relation to introduced hedgehogs (*Erinaceus europaeus*). *Biological Conservation* 117: 151-166.

Summary: Describes changes in bird numbers observed as hedgehogs colonised the Uist islands

Moss, K. and Sanders, M. 2001. Advances in New Zealand mammalogy 1990-2000: Hedgehog. *Journal of the Royal Society of New Zealand* 31(1): 31-42.

Summary: An update of hedgehog biology and ecology in New Zealand.

Available from: <http://www.rsnz.org/publish/jrsnz/2001/4.php> [Accessed 18 February 2008]

Moutou, F. 1983. Introduction dans les Îles: l'exemple de l'île de la Réunion. *C.R. Soc. Biogéogr.* 59 (2) : 201-211

Summary: This article presents the historic of introductions in the Reunion island

Museum national d'Histoire naturelle [Ed]. 2003-2006. *Erinaceus europaeus* Linnaeus, 1758. *Inventaire national du Patrimoine naturel*

Summary: Base de données en ligne sur le patrimoine naturel français.

Available from:

http://inpn.mnhn.fr/isb/servlet/ISBServlet?action=Espece&typeAction=10&pageReturn=ficheEspeceDescription.jsp&numero_taxon=60015
[Accessed 1 April 2008]

Probst J.-M. 1997. Animaux de la Réunion. Azalées Editions. 168 pp.

Probst J.-M. 1999. Catalogue des Vertébrés de l'île de la Réunion. Amphibiens, Reptiles, Oiseaux et Mammifères se reproduisant sur l'île. Rapport DIREN. 167 pp.

Summary: Catalogue des vertébrés indigènes et exotiques de La Réunion

Reeve, N. 1994. Hedgehogs. T. & A. D. Poyser, London, England. 313pp.

Summary: Very good overview of studies, biology and place in society of spiny hedgehogs (Erinaceinae), principally the two European species.

Salamolard, M. 2002. Orientations Régionales de Gestion de la Faune sauvage et d'amélioration de la qualité de ses Habitats- Etat des lieux - SEOR. DIREN. 57 p.