

*Bos taurus*   正體中文

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Artiodactyla	Bovidae

**Common name** Hausrind (German), cattle (English)

**Synonym** *Bos indicus* , Linnaeus, 1758  
*Bos primigenius* , Bojanes, 1827

### Similar species

### Summary

Feral cattle (*Bos taurus*) are escaped or released domestic animals. Unless well contained by adequate fences, they form feral herds and wander into native vegetation wherever suitable food is available. They can severely modify native vegetation by browsing, crushing and trampling. In native forests they invariably lay bare the forest floor and eliminate nearly all young trees, shrubs and ferns until only a few unpalatable or browse-resistant species remain. In subalpine environments feral cattle open up clearings by breaking down and browsing low-canopied vegetation.



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

### Species Description

Feral cattle can be distinguished from domestic stock only by their location and lack of ear marks or tags. Their size and conformation vary greatly depending on sex, age and breed. The male is heavier and larger, particularly around the head and neck. The hair is either straight or curly, and ranges from whitish to black with shades and blotches of red, roan, brown or buff. Both sexes can have horns, which are permanent and hollow, and grow throughout life over bony cores projecting from a prominent ridge on the skull. The horns of bulls are usually shorter and thicker than those of cows (Parkes, 2005).

### Uses

Domestic cattle are used for meat, milk, hides and as draft animals. Feral cattle may be hunted for meat and hides.

### Reproduction

The oestrus cycle is 3 weeks, and the gestation period about 9.5 months. Feral calves are most commonly born in late spring. Multiple births are unknown in feral herds. Calves are born with their eyes open, they stand and suckle almost at once, and within a few hours can follow their mother. They are usually weaned well before the next calf is born.

Males reach puberty at about 10 months of age, and thereafter are fecund throughout the year, but feral bulls do not mate until strong enough to compete for cows. Domestic cows can conceive at 6-10 months, but apparently very few do so in the wild. Cows may remain fertile for about 12 years and come in-season in spring or about 3 weeks after calving.

## Nutrition

In mainland forests feral cattle browse on a very wide range of shrubs and young trees. Feral cattle are afoot at first light, feeding rapidly until the paunch is full, and then they alternate periods of chewing the cud with grazing throughout the day. Normally they ruminate lying down, but in wet weather they may stand with their backs to the wind. In bush country feral cattle will "walk down" tall saplings up to 6m high, straddling the stem in order to bend the tops within reach, and then stripping off the leaves.

## General Impacts

Feral cattle can severely modify native vegetation by browsing, crushing and trampling (Aston 1912; Wodzicki 1950). In native forests they invariably lay bare the forest floor and eliminate nearly all young trees, shrubs and ferns, until only a few unpalatable or browse-resistant species remain. In subalpine environments feral cattle open up clearings by breaking down and browsing low-canopied vegetation. On sub-antarctic Enderby Island feral cattle prevented the regeneration of *Poa litorosa* tussock grassland and a variety of endemic sub-antarctic herbs (Parkes, 2005). Scott *et al.* (in Stone 1984) regarded domestic and feral cattle as the "single most destructive agent to Hawai'ian ecosystems, particularly to koa forests". Regeneration of young koa (see [Acacia koaia in IUCN Red List of Threatened Species](#)) trees is completely suppressed in some forests of Hawai'i (Baldwin and Fagerlund 1943; SPREP, 2000).

Degradation of breeding sites by introduced cattle has decreased the range and population of the 'critically endangered' Amsterdam albatross (see [Diomedea amsterdamensis in IUCN Red List of Threatened Species](#)). Across the island (BirdLife International 2007).

## Management Info

Preventative measures: Well maintained fences can give adequate protection from cattle to areas of native woody vegetation (Courchamp *et al.* 2003). A fence was used on Amsterdam Island in the Indian Ocean to prevent cattle damaging the breeding grounds of the 'Critically Endangered (CR)' Amsterdam albatross (see [Diomedea amsterdamensis in IUCN Red List of Threatened Species](#)). Cattle were restricted to a small part of the island and eradicated from the rest (Micol and Jouventin, 1995).

Physical: Dogs and shooting are a standard method of control (SPREP, 2000).

## Pathway

Particularly important in Hawaii and New Caledonia as the basis for a meat industry.

**Principal source:** Taylor R. H. (1990) in King C. M. (ed.) The Handbook of New Zealand Mammals

**Compiler:** IUCN/SSC Invasive Species Specialist Group (ISSG)

## Review:

**Publication date:** 2007-07-03

## ALIEN RANGE

[3] CAYMAN ISLANDS

[1] FALKLAND ISLANDS (MALVINAS)

[12] FRENCH POLYNESIA

[1] KIRIBATI

[6] NEW ZEALAND

[1] REUNION

[4] TURKS AND CAICOS ISLANDS

[7] UNITED STATES

[1] ECUADOR

[4] FIJI

[1] FRENCH SOUTHERN TERRITORIES

[2] NEW CALEDONIA

[2] NORTHERN MARIANA ISLANDS

[1] SAMOA

[1] TUVALU

[1] VIRGIN ISLANDS, BRITISH

**Red List assessed species 230: EX = 1; EW = 1; CR = 54; EN = 65; VU = 76; LR/nt = 1; NT = 27; DD = 1; LC = 4;**

<a href="#">Abutilon eremitopetalum</a> CR	<a href="#">Abutilon menziesii</a> CR
<a href="#">Abutilon sandwicense</a> CR	<a href="#">Acacia anegadensis</a> CR
<a href="#">Acacia koaia</a> VU	<a href="#">Aceros everetti</a> VU
<a href="#">Achyranthes mutica</a> CR	<a href="#">Achyranthes splendens</a> VU
<a href="#">Acropogon bullatus</a> NT	<a href="#">Albizia guillainii</a> VU
<a href="#">Alectryon macrococcus</a> CR	<a href="#">Apalis karamojae</a> VU
<a href="#">Arborophila rufipectus</a> EN	<a href="#">Ardeotis australis</a> NT
<a href="#">Argyroxiphium kauense</a> CR	<a href="#">Arianta chamaeleon</a> EN
<a href="#">Arytera nekorensis</a> VU	<a href="#">Aschisma kansanum</a> VU
<a href="#">Aspidoscelis arizonae</a> NT	<a href="#">Assyriella rechingeri</a> CR
<a href="#">Asthenes luizae</a> NT	<a href="#">Atractocarpus platyxydon</a> VU
<a href="#">Austromyrtus lotoides</a> VU	<a href="#">Avicennia bicolor</a> VU
<a href="#">Balaeniceps rex</a> VU	<a href="#">Batrachoseps campi</a> EN
<a href="#">Batrachoseps simatus</a> VU	<a href="#">Bettongia lesueur</a> NT
<a href="#">Bonamia menziesii</a> CR	<a href="#">Boophis tampoka</a> EN
<a href="#">Bos javanicus</a> EN	<a href="#">Cadiscus aquaticus</a> CR
<a href="#">Callerya neocaledonica</a> CR	<a href="#">Callicebus medemi</a> VU
<a href="#">Calyptranthes thomasiana</a> EN	<a href="#">Camarhynchus pauper</a> CR
<a href="#">Cambarus clivosus</a> VU	<a href="#">Cambarus cymatilis</a> EN
<a href="#">Canavalia veillonii</a> CR	<a href="#">Capra caucasica</a> EN
<a href="#">Celtis balansae</a> VU	<a href="#">Cenchrus agrimonioides</a> CR
<a href="#">Centaurium sebaeoides</a> CR	<a href="#">Centrocercus urophasianus</a> NT
<a href="#">Cephalomappa sinensis</a> VU	<a href="#">Ceratogomphus triceraticus</a> VU
<a href="#">Ceratozamia mexicana</a> VU	<a href="#">Cercocebus galeritus</a> EN
<a href="#">Cherax leckii</a> CR	<a href="#">Chinchilla lanigera</a> CR
<a href="#">Chlorolestes apricans</a> EN	<a href="#">Cinnyricinclus femoralis</a> VU
<a href="#">Cisticola aberdare</a> EN	<a href="#">Commidendrum robustum</a> EN
<a href="#">Cordia rupicola</a> CR	<a href="#">Corvus hawaiiensis</a> EW
<a href="#">Crambe scoparia</a> EN	<a href="#">Crocidura harenna</a> CR
<a href="#">Cryptotis nelsoni</a> CR	<a href="#">Cupaniopsis globosa</a> VU
<a href="#">Cyanoramphus malherbi</a> CR	<a href="#">Cyclura pinguis</a> CR
<a href="#">Cymbopetalum torulosum</a> VU	<a href="#">Darevskia clarkorum</a> EN
<a href="#">Darevskia unisexualis</a> NT	<a href="#">Darevskia uzzelli</a> EN
<a href="#">Diomedea amsterdamensis</a> CR	<a href="#">Diomedea epomophora</a> VU
<a href="#">Dioon califanoi</a> EN	<a href="#">Diospyros cherrieri</a> VU
<a href="#">Diospyros impolita</a> VU	<a href="#">Diospyros minimifolia</a> NT
<a href="#">Diospyros pustulata</a> VU	<a href="#">Diplotaxis siettiana</a> CR
<a href="#">Dorcatragus megalotis</a> VU	<a href="#">Drepanis funerea</a> EX
<a href="#">Ducula galeata</a> EN	<a href="#">Eleutherodactylus armstrongi</a> EN
<a href="#">Eleutherodactylus hypostenor</a> EN	<a href="#">Emmenosperma pancherianum</a> VU
<a href="#">Engaeus granulatus</a> CR	<a href="#">Engaeus nulloporius</a> DD
<a href="#">Engaeus spinicaudatus</a> CR	<a href="#">Engaeus sternalis</a> CR
<a href="#">Engaewa pseudoreducta</a> CR	<a href="#">Engaewa reducta</a> EN
<a href="#">Engaewa similis</a> LC	<a href="#">Engaewa walpolea</a> EN
<a href="#">Equus hemionus</a> EN	<a href="#">Erigeron frigidus</a> EN
<a href="#">Eriocaulon tuberiferum</a> VU	<a href="#">Eudorcas rufifrons</a> VU
<a href="#">Eugenia ericoides</a> NT	<a href="#">Eugenia sp. nov. 'calcareae'</a> VU
<a href="#">Eugenia sp. nov. 'dagostini'</a> EN	<a href="#">Eugenia sp. nov. 'lepredourii'</a> CR
<a href="#">Eugenia sp. nov. 'metzdorfii'</a> EN	<a href="#">Felis nigripes</a> VU
<a href="#">Gallinula pacifica</a> CR	<a href="#">Gardenia brighamii</a> CR
<a href="#">Geophaps smithii</a> NT	<a href="#">Gomphus sandrius</a> VU
<a href="#">Grossuana thracica</a> CR	<a href="#">Guettardella sp. nov. 'durisylvatica'</a> EN
<a href="#">Haematopus chathamensis</a> EN	<a href="#">Heleioporus australiacus</a> VU
<a href="#">Hemignathus lucidus</a> CR	<a href="#">Hibiscus clayi</a> CR

[Homalium leratiorum](#) **VU**  
[Iberolacerta aranica](#) **EN**  
[Iberolacerta bonnali](#) **NT**  
[Jamesoniella undulifolia](#) **VU**  
[Juniperus brevifolia](#) **VU**  
[Kobus megaceros](#) **EN**  
[Laterallus spilonotus](#) **VU**  
[Leptaxis minor](#) **EN**  
[Lipocarpha kernii](#) **LC**  
[Loxioides bailleui](#) **CR**  
[Lygodactylus klemmeri](#) **VU**  
[Megapodius laperouse](#) **EN**  
[Mertensiella caucasica](#) **VU**  
[Myadestes obscurus](#) **VU**  
[Nothura minor](#) **VU**  
[Opuntia chaffeyi](#) **CR**  
[Oreomystis mana](#) **EN**  
[Oryza neocaledonica](#) **EN**  
[Oxyura australis](#) **NT**  
[Pezoporus occidentalis](#) **CR**  
[Phelsuma standingi](#) **VU**  
[Phyloria kundagungan](#) **EN**  
[Phyloria richmondensis](#) **EN**  
[Phyllanthus deplanchei](#) **VU**  
[Pichonia balansana](#) **LC**  
[Pinguicula nevadensis](#) **EN**  
[Pisonia artensis](#) **VU**  
[Pittosporum gatopense](#) **VU**  
[Platanthera praeclara](#) **EN**  
[Podonephelium subaequilaterum](#) **VU**  
[Polyscias nothisii](#) **EN**  
[Pristimantis simoterus](#) **NT**  
[Psephotus chrysopterygius](#) **EN**  
[Pseudobithynia ambrakis](#) **VU**  
[Pseudomys oralis](#) **VU**  
[Pterodroma externa](#) **VU**  
[Pterodroma phaeopygia](#) **CR**  
[Ptilinopus huttoni](#) **VU**  
[Randia pancheriana](#) **VU**  
[Rhabdoena stokesi](#) **NT**  
[Rhinella rubropunctata](#) **VU**  
[Rynchops flavirostris](#) **NT**  
[Serapias stenopetala](#) **CR**  
[Solanum pancheri](#) **NT**  
[Spermodea lamellata](#) **NT**  
[Sylvilagus insonus](#) **EN**  
[Syzygium pendulinum](#) **EN**  
[Syzygium veillonii](#) **EN**  
[Tachyoryctes macrocephalus](#) **EN**  
[Tapirus terrestris](#) **VU**  
[Terminalia cherrieri](#) **EN**  
[Todiramphus farquhari](#) **NT**  
[Tomichia cawstoni](#) **CR**  
[Turbina inopinata](#) **CR**  
[Hyloxalus ruizi](#) **CR**  
[Iberolacerta aurelioi](#) **EN**  
[Ixora margaretae](#) **VU**  
[Jasminum elatum](#) **VU**  
[Justicia pinensis](#) **EN**  
[Kobus vardonii](#) **NT**  
[Leontodon siculus](#) **NT**  
[Leptopelis xenodactylus](#) **EN**  
[Litoria pearsoniana](#) **NT**  
[Lycodryas citrinus](#) **VU**  
[Mandevilla jamesonii](#) **CR**  
[Melicope hawaiiensis](#) **VU**  
[Metastelma anegadense](#) **CR**  
[Nanger dama](#) **CR**  
[Ochotona princeps](#) **LC**  
[Orculella templorum](#) **NT**  
[Oreophasis derbianus](#) **EN**  
[Oxera balansae](#) **EN**  
[Ozobryum ogalalense](#) **CR**  
[Phalacrocorax colensoi](#) **VU**  
[Phenacolimax blanci](#) **VU**  
[Phyloria loveridgei](#) **EN**  
[Phyloria sphagnicolus](#) **EN**  
[Phyllanthus unifoliatus](#) **EN**  
[Piliocalyx eugenioides](#) **EN**  
[Pinus maximartinezii](#) **EN**  
[Pittosporum brevispinum](#) **EN**  
[Pittosporum tanianum](#) **CR**  
[Plethodontohyla fonetana](#) **EN**  
[Polyscias crenata](#) **VU**  
[Pristimantis simoteriscus](#) **EN**  
[Protium inconforme](#) **VU**  
[Pseuderanthemum incisum](#) **VU**  
[Pseudomys australis](#) **VU**  
[Psychotria deverdiana](#) **VU**  
[Pterodroma longirostris](#) **VU**  
[Pterodroma sandwichensis](#) **VU**  
[Puffinus creatopus](#) **VU**  
[Rhabdoena mirifica](#) **NT**  
[Rhabdoena zasiensis](#) **NT**  
[Ruprechtia apetala](#) **LR/nt**  
[Sceloporus exsul](#) **CR**  
[Solanum hugonis](#) **EN**  
[Solenanthus albanicus](#) **EN**  
[Sterna albobristata](#) **EN**  
[Sylvisorex camerunensis](#) **VU**  
[Syzygium poyanum](#) **VU**  
[Tacheocampylaea carotii](#) **VU**  
[Taoniscus nanus](#) **VU**  
[Tephrosia pondoensis](#) **VU**  
[Thalassarche carteri](#) **EN**  
[Todiramphus godeffroyi](#) **CR**  
[Trigonostemon cherrieri](#) **CR**  
[Turnix melanogaster](#) **VU**

[Uebelmannia buiningii](#) CR  
[Veronica oetaea](#) CR  
[Vini ultramarina](#) EN  
[Vipera dinniki](#) VU  
[Xerocrassa edmundi](#) EN  
[Zaedyus pichiy](#) NT  
[Zamia restrepoi](#) CR

[Uma parapygas](#) NT  
[Vestiarina coccinea](#) VU  
[Vipera darevskii](#) CR  
[Vipera ebneri](#) VU  
[Xylosma grossecrenatum](#) EN  
[Zamia loddigesii](#) NT  
[Zavattariornis stresemanni](#) EN

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### Management information

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[Atkinson, I. A. E. and Atkinson, T. J. 2000. Land vertebrates as invasive species on islands served by the South Pacific Regional Environment Programme. In: Invasive Species in the Pacific: A Technical Review and Draft Regional Strategy. South Pacific Regional Environment Programme, Samoa: 19-84.](#)

**Summary:** This report reviews available information on the adverse effects of 14 alien vertebrates considered to be significant invasive species on islands of the South Pacific and Hawaii, supplementing the authors' experience with that of other workers.

Baldwin, P. H. and Fagerlund, G. O. 1943. The effect of cattle grazing on koa reproduction in Hawaii National Park. Ecology 24: 118-122.

[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]

Courchamp, F., Chapuis, J.-L., and Pascal, M. 2003. Mammal invaders on islands: impact, control and control impact. Biological Reviews, 78: 347-383.

**Summary:** Comprehensive review of impacts of mammals on islands using rabbits as a case study

[Klinger, R. C.; P. Schuyler, and J. D. Sterner., 2002. The response of herbaceous vegetation and endemic plant species to the removal of feral sheep from the Santa Cruz Island, California. In Turning the tide: the eradication of invasive species: 381-388. Veitch, C.R. and Clout, M.N.\(eds\). IUCN SSC Invasive Species Specialist Group. IUCN. Gland. Switzerland and Cambridge. UK.](#)

**Summary:** Eradication case study in Turning the tide: the eradication of invasive species.

[Rauzon, M. J., D. J. Forsell, and E. N. Flint., 2002. Seabird re-colonisation after cat eradication on equatorial Jarvis, Howland, and Baker Islands, USA, Central Pacific. In Turning the tide: the eradication of invasive species: 406 - 414 IUCN SSC Invasive Species Specialist Group. IUCN. Gland. Switzerland and Cambridge. UK.](#)

**Summary:** Eradication case study In Turning the tide: the eradication of invasive species.

[Rescue Projects of the Rare Breeds Conservation Society of New Zealand: Enderby Island cattle.](#)

**Summary:** Outlines the effort invested in a rescue project to conserve the rare breed of Enderby Island cattle when conservation values conflicted with historical values.

Snowcraft, P. G. 1983. Tree cover changes in mammane (*Sophora chrysophylla*) forests grazed by sheep and cattle. Pacific Science 37: 109-119.

Taylor, R. H. 1990. Feral cattle. In King, C. M. (ed.) The Handbook of New Zealand Mammals, Oxford University Press, New Zealand: 373-379.

[Torr, 2002. Eradication of rabbits and mice from subantarctic Enderby and Rose Islands. In Turning the tide: the eradication of invasive species: 319-327. Veitch, C.R. and Clout, M.N.\(eds\). IUCN SSC Invasive Species Specialist Group. IUCN. Gland. Switzerland and Cambridge. UK.](#)

**Summary:** Eradication case study in Turning the tide: the eradication of invasive species.

[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]

Wodzicki, K. A. 1950. Introduced mammals of New Zealand. Department of Scientific and Industrial Research Bulletin 98. Department of Scientific and Industrial Research, Wellington.

### General information

[BirdLife International 2007. Diomedea amsterdamensis. In: IUCN 2007. 2007 IUCN Red List of Threatened Species](#)

**Summary:** Available from: <http://www.iucnredlist.org/apps/redlist/details/144900/0> [Accessed March 8 2010]

Butaud, pers. comm., 2007

**Summary:** Personal communication with Jean François Butaud, an expert naturalist of French Polynesia

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.

De Garine-Wichatitsky, M., Spaggiari, J., Menard, C. 2004. Ecologie et impact des ongulés introduits sur la forêt sèche de Nouvelle Calédonie. IAC/CIRAD, Programme Elevage et Faune, Païta, Nouvelle-Calédonie, 50p et 128 p d annexes.

[Frenot, Y., Chown, S.L., Whinam, J., Selkirk, P., Convey, P., Skotnicki, M., & Bergstrom, D. 2005. Biological invasions in the Antarctic: extent, impacts and implications. \*Bio. Rev.\* 80, 45-72.](#)

**Summary:** Article de synthèse sur les invasions biologiques (plantes, invertébrés et vertébrés) en antarctique.

Available from: <http://www.anta.canterbury.ac.nz/resources/non-native%20species%20in%20the%20antarctic/Talk%202%20Frenot.pdf> [Accessed 4 April 2008]

Frenot, Y., Gloaguen, J., Massé, L., & Lebouvier, M. 2001. Human activities, ecosystem disturbance and plant invasions in subantarctic Crozet, Kerguelen and Amsterdam Islands. *Biological Conservation*, 101, 33-50.

**Summary:** Cette article propose une liste des plantes exotiques pour 3 des îles subantarctiques françaises. Le rôle passé et présent des activités humaines dans les phénomènes d'invasions est discuté.

[Gargominy, O., Bouchet, P., Pascal, M., Jaffre, T. and Tourneau, J. C. 1996. Conséquences des introductions d'espèces animales et végétales sur la biodiversité en Nouvelle-Calédonie. \*Rev. Ecol. \(Terre Vie\)\* 51: 375-401.](#)

**Summary:** Consequences to the biodiversity of New Caledonia of the introduction of plant and animal species.

[ITIS \(Integrated Taxonomic Information System\), 2004. Online Database \*Bos taurus\*](#)

**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=183838](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=183838) [Accessed December 31 2004]

Meyer, J.-Y. pers. comm., 2007

**Summary:** Personal communication with Jean Yves Meyer, from the Délégation de la Recherche of French Polynesia

Micol, T. & Jouventin, P. 1995. Restoration of Amsterdam Island, South Indian Ocean, following control of feral cattle. *Biol. Conserv.*, 72, 199-206.

Parkes, J.P. 2005. Feral cattle. In C.M. King (Ed.): *Handbook of New Zealand Mammals*, Second Edition, pp. 346-350. Oxford University Press, Melbourne.

Pascal, M., Barré, N., De Garine-Wichatitsky, Lorvelec, O., Frétey, T., Brescia, F., Jourdan, H. 2006. Les peuplements néo-calédoniens de vertébrés : invasions, disparitions. Pp 111-162, in M.-L. Beauvais et al., : *Les espèces envahissantes dans l'archipel néo-calédonien*, Paris, IRD éditions, 260 p.+ cdrom

**Summary:** Synthèse des introductions d'espèces de vertébrés en Nouvelle-Calédonie et évaluation de leurs impacts.

Triolo, J. 2005. Guide pour la restauration écologique de la végétation indigène-Ile de La Réunion, ONF-Direction Générale de la Réunion, 88 p

**Summary:** Guide pratique sur la restauration écologique de la Réunion. De nombreuses informations sur la végétation et les menaces.