GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Bos taurus***

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).\r\n
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:

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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;

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

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

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

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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.

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Butaud, pers. comm., 2007

Summary: Personal communication with Jean Fran0is Butaud, an expert naturalist of French Polynesia

Chapuis, J., Bouss0s, P., & Barnaud, G. 1994. Alien mammals, impact and management in the French Subantartic Islands. Biological Conservation, 67, 97-104.

Summary: Cet article pr0sente la situation actuelle et les impacts des populations introduites de mammif0res dans les 0les subantarctiques fran0aises. Les moyens de contr0le en place ou planifi0s sont 0galement pr0sent0s.

Chapuis, J.L, & Bousses, P. 1987. Relations animal-v0g0tation : cons0quences des introductions de mammif0res phytophages dans l archipel de Kerguelen. Actes du colloque sur la Recherche fran0aise dans les Terres Australes.269-278

Summary: L histoire des introductions de 4 mammif0res herbivores, l 0volution de leurs populations, et leurs impacts sur les communaut0s v0g0tales et animales sont pr0sent0s et discut0s. Des moyens de contr0le sont envisag0s pour permettre la restauration de ces milieux.

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Summary: Synth�se des introductions d esp�ces de vert�br�s en Nouvelle-Cal�donie et �valuation de leurs impacts.
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