Capra hircus 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Artiodactyla	Bovidae

Common name Hausziege (German), goat (English)

Synonym

Similar species

Summary The goat (Capra hircus) was domesticated 10,000 years ago in the highlands of western Iran. These herbivores have a highly varied diet and are able to ultilise a larger number of plant species than other livestock. Goats alter plant communities and forest structure and threaten vulnerable plant species. The reduction of vegetation reduces shelter options for native animals and overgrazing in native communitties leads to ecosystem degradation. Feral goats spread disease to native animals. Native fauna on islands are particularly susceptible.

view this species on IUCN Red List

Species Description
Males weigh between 45 and 55 kilos and females weigh between 25 and 35 kilos. Colouration is highly variable from mostly black, to various shades of brown, and from single-coloured to multi-coloured. Black anterior with brown posterior is a common pattern. Horns are dimorphic, having homonymous spiral and anterior keel. Males are bearded and produce pheromones during the breeding season.

Uses
The ability of goat herds to survive in harsh environments has lead to their introduction onto many islands, including Saint Helena Island, the Juan Fernandez Islands and Hawaii. They provided food for colonising people (specifically European colonisers and ship crews) (Campbell and Donlan 2005). Fishermen may have spread goats onto new islands, such as San Benitos (Mexico) and Pinta Island and Marchena Island (Galapagos Islands, Ecuador) (Campbell and Donlan 2005). \r\n
Goats were domesticated 10,000 years ago in the highlands of western Iran (Zeder and Hesse 2000, in Campbell and Donlan 2005). Goats are used for their fur and meat as well as for milk and cheese production. Goat meat is the most highly consumed meat source in the world. More goats milk is consumed than cows milk. Angora goats have long soft fur which is utilised to produce a soft silk-like fabric called mohair. In New Zealand, mohair prices are strong (2006) and farm gate returns are good. Although little is known of optimum farm management systems, it is considered that the farming of angora goats could contribute to the positive growth of the economy (Mohair NZ Business Plan 2006). The French are well known for utilising goat products for economic purposes; making cheese and other goat milk products (Canus Undated). Some cosmetic products have claimed to help eczema sufferers (Johnson 2006).

Habitat Description
Goats usually move in herds that roam over territories up to 20km wide. Sometimes herd ranges can be as small as 100m2. Males usually wander more widely than females. Grasslands, scrub lands, rocky outcrops and semi-open or open forests are all used extensively by goats as habitat substrate. In bad weather, they may seek shelter under rocky ledges (SPREP, 2000).

Reproduction
Both sexes are physiologically capable of reproduction at about 6 months of age. Dominant males fight to win females. They follow a serial pattern and attend to one female after another as they come into estrus. In one sense this is termed polygyny, as males breed with as many females as they can during a breeding period, but more properly this is serial monogamy as a male will tend a female for extended periods, both before and after copulation and before leaving in search of a different mate.\r\n
Realised reproduction varies among populations, seasons and years. At best a typical female goat would produce one young in its first pregnancy and twin kids in subsequent pregnancies. However, most females are at less than optimal condition, which may result in a twinning rate of as little as 0%. At best, herds may produce twins at a rate of 80% or more. Triplets are not uncommon.

Nutrition
Goats are herbivores and will forage on any palatable plants in their home range. Goats have rather large rumino-reticular volume so they are able to subsist on poorer quality plants than most herbivores, therefore goats can survive and subsist in heavily exploited environments. \r\n
In a study conducted by Chimera, Coleman and Parkes (1995) the rumen contents of 49 goats (captured in 1989) were identified and the dry weight of each component was measured to produce a breakdown of the diet of a small, unique remnant population (now extinct) of feral goats on Auckland Island (a subantarctic island located south of New Zealand). Woody plants and grasses made up the bulk of their diet (41% and 39%, respectively); seaweeds made up 13%, ferns 4% and herbaceous species 3%. At least 40 plant species were eaten by the goats, but only three species, rata (*Metrosideros umbellate*), snow tussock (*Chionochloa Antarctica*) and kelp (*Durvillea Antarctica*), made up half of the total. Rata (*Metrosideros umbellate*), *Coprosma foetidissima*, *Pseudopanax simplex* and *Carex appressa* were the most commonly found species - eaten in at least some quantity by 90%, 80%, 76% and 69% of the goats (respectively). Unidentified grasses composed 21.4% of the total contents (dry weight) and were found in 100% of goats. NB: This population had a unique genetic makeup as it evolved separately for over 100 years on an isolated island with a cold and harsh climate and so it may not represent the dietary preferences of all goats. However, it highlights the huge adaptability of goats and their ability to subsist in particular and inhospitable landscapes.

General Impacts
Biodiversity on islands is greatly threatened, making the introduction of herbivores a great risk (Campbell and Donlan 2005). Unfortunately, goats (*Capra hircus*) have been established on many such islands. Goats alter plant communities and forest structures and threaten vulnerable plant species; the flow-down effect of these outcomes includes increased soil erosion and the reduction of native fauna that share a similar environmental niche (Spatz and Mueller-Dombois 1973, Coblentz 1978, Parkes 1984, Brennan 1986, Coblentz and Van Vuren 1987, Cronk 1989, Walker 1991, Moran 1996, Desender *et al*. 1999, in Campbell and Donlan 2005). In some island ecosystems it has been the case that goats are the most destructive herbivore present (King, 1985). Feral goats are particularly destructive in such environments and cause a huge loss in native vegetation due to their grazing habits. This leads to ecosystem degradation and biodiversity loss (Coblentz 1978; Schofield 1989; Moran 1996; Desender *et al.* 1999 in Campbell and Donlan 2005).

Management Info
Goats have been eradicated from approximately 120 islands and there is hope that native communities will recover rapidly (Hamann 1979, 1993, in Campbell and Donlan 2005). The largest islands on which substantial goat populations have been removed are: Lanai Island (Hawaii), San Clemente (USA), Pinta Island (Galapagos Islands, Ecuador) and Raoul Island (New Zealand) (Campbell and Donlan 2005). In general, goat eradication management for islands larger than 500 hectares requires detailed planning and the use of specialised technology, equipment and personnel. Securing funds for eradication programmes may be an obstacle to goat control (Campbell and Donlan 2005).
The introduction of modern eradication technology has greatly improved the effectiveness of goat control programmes, making goat eradication more likely. Some control methods include the employment of aerial hunting (helicopter), specially trained goat-hunting dogs, Global Positioning Systems and Geographic Information System techniques as well as sterilised goats marked with radiotelemetry collars, called “Judas goats”, which gravitate to, and therefore detect, wild goat herds. Judas goats are used to find wild herds and are especially suitable for finding the last few survivors or to detect the presence of wild goats when it is uncertain whether they have been eradicated. Hunting dogs are particularly useful in situations when goat density is low and vegetation density is high. Aerial hunting is appropriate in situations where there is less ground cover and a higher density of goats. \r\nEradication is always the better option when compared to short-term control. If short-term control is chosen, goats should be kept at low densities.
Please follow this link for an overview of the management methods adopted for the control of *Capra hircus* compiled by the ISSG.
Guidelines for managing the impact of feral goats have been developed under the Vertebrate Pest Program (VPP) Australia administered by the Bureau of Resource Sciences (BRS). The purpose of these guidelines is to assist in the development of cost-effective strategies to reduce the damage feral goats’ cause to production and conservation. Management techniques and strategies for feral goat management are recommended and illustrated by case studies. Deficiencies in knowledge, management and legislation are identified. Please follow this link to view and download Parkes, J., R Henzell & G Pickles, 1995. Managing Vertebrate Pests: Feral Goats

Pathway
Goats (*Capra hircus*) were released as potential food for people marooned by shipwrecks.Goats (*Capra hircus*) were introduced to islands for their milk.

Principal source:

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: Dr. Bruce Coblentz, Oregon State University, USA.

Pubblication date: 2010-09-15

ALIEN RANGE

[2] ANGUILLA
[41] AUSTRALIA
[1] BES ISLANDS (BONAIRE, SINT EUSTATIUS AND SABA)
[3] CAYMAN ISLANDS
[1] CURACAO
[8] ECUADOR
[1] FIJI
[3] FRENCH SOUTHERN TERRITORIES
[1] ANTIGUA AND BARBUDA
[1] BAHAMAS
[2] CANADA
[1] COOK ISLANDS
[1] DOMINICAN REPUBLIC
[1] FALKLAND ISLANDS (MALVINAS)
[3] FRENCH POLYNESIA
[1] GREECE

[2] GUADELOUPE
[1] JAMAICA
[1] MAURITIUS
[4] MEXICO
[14] NEW ZEALAND
[2] NORTHERN MARIANA ISLANDS
[1] PORTUGAL
[1] REUNION
[1] SAINT LUCIA
[4] SPAIN
[7] UNITED STATES
[4] VIRGIN ISLANDS, BRITISH
[1] HAITI
[2] KIRIBATI
[1] MAYOTTE
[1] NEW CALEDONIA
[1] NORFOLK ISLAND
[1] PITCAIRN
[1] PUERTO RICO
[4] SAINT HELENA
[3] SEYCHELLES
[2] TURKS AND CAICOS ISLANDS
[1] VENEZUELA
[1] VIRGIN ISLANDS, U.S.

Red List assessed species 284: EX = 7; EW = 1; CR = 102; EN = 80; VU = 67; LR/nt = 1; NT = 16; DD = 5; LC = 5;

Abutilon menziesii **CR**
Acacia anegadensis **CR**
Aceros narcondami **EN**
Acrocephalus kerearako **NT**
Acrocephalus vaughani **EN**
Actinella laciniosa **VU**
Alectryon macrococcus **CR**
Alsinidendron trinerve **CR**
Amazona barbadensis **VU**
Androcymbium psammophilum **VU**
Antirrhinum charidemi **CR**
Aphrastura masafuerae **CR**
Argyroxiphium sandwicense **VU**
Asparagus arborescens **VU**
Begonia samhaensis **EN**
Bidens cosmoides **EN**
Bidens wiebkei **CR**
Bonamia menziesii **CR**
Brahea edulis **EN**
Brassica villosa **NT**
Brighamia rockii **CR**
Bulimulus cinerarius **EN**
Bulimulus indefatigabilis **CR**
Bulimulus nesioticus **VU**
Bulimulus perrus **VU**
Bulimulus tortuganus **VU**
Cabalus modestus **EX**
Campanula mairei **VU**
Canariella huttereri **EN**
Canavalia molokaiensis **CR**
Canavalia pubescens **CR**
Capra aegagrus **VU**
Centaurea princeps **EN**
Centranthus amazonum **CR**
Chamaesyce eleanoriae **CR**
Charpentiera densiflora **CR**
Chinchilla lanigera **CR**
Cicer canariense **EN**
Collocalia bartschi **EN**
Abutilon sandwicense **CR**
Acacia koaia **VU**
Achyranthes mutica **CR**
Acrocephalus luscinius **CR**
Actinella actinophora **VU**
Aethionema retsina **CR**
Aloe pillansii **CR**
Alsinidendron viscosum **CR**
Anas wyvilliana **EN**
Anolis longiceps **VU**
Apalis karamojae **VU**
Argyroxiphium kauense **CR**
Armeria soleirolii **EN**
Atelognathus reverberii **EN**
Bencomia exstipulata **VU**
Bidens molokaiensis **VU**
Bobea timonioides **EN**
Bowdleria rufescens **EX**
Brassica rupestris **NT**
Brighamia insignis **CR**
Bulimulus albermalensis **DD**
Bulimulus darwini **VU**
Bulimulus jacobi **CR**
Bulimulus olla **EN**
Bulimulus sculpturatus **CR**
Bupleurum kakiskalae **CR**
Callaeas cinereus **EN**
Canariella eutropis **EN**
Canariella jandiaensis **CR**
Canavalia napaliensis **CR**
Capparis sandwichiana **VU**
Cenchrus agrimonioides **CR**
Centaurium sebaeoides **CR**
Centranthus trinervis **EN**
Chamaesyce remyi **CR**
Cheirolophus santos-abreui **CR**
Christella boydiae **EN**
Coccyzus ferrugineus **VU**
Colubrina oppositifolia **CR**

Convolvulus lopezsocasii **EN**
Corvus hawaiiensis **EW**
Ctenitis squamigera **CR**
Cyanea asplenifolia **CR**
Cyclura carinata **CR**
Cyclura onchiopsis **EX**
Darevskia rostombekovi **EN**
Dipodomys insularis **CR**
Discula tetrica **CR**
Echium gentianoides **VU**
Encephalartos lehmannii **NT**
Erigeron frigidus **EN**
Euastacus australasiensis **LC**
Euastacus bispinosus **VU**
Euastacus clarkae **CR**
Euastacus crassus **EN**
Euastacus dharawalus **CR**
Euastacus eungella **CR**
Euastacus girurmulayn **CR**
Euastacus guruhgi **CR**
Euastacus hystricosus **EN**
Euastacus jagara **CR**
Euastacus maidae **CR**
Euastacus monteithorum **CR**
Euastacus polysetosus **EN**
Euastacus setosus **CR**
Euastacus spinichelatus **EN**
Euastacus suttoni **VU**
Euastacus valentulus **LC**
Euastacus yanga **LC**
Eupherusa poliocerca **VU**
Frankenia portulacifolia **VU**
Gallirallus sylvestris **EN**
Genista benehoavensis **VU**
Globularia ascanii **CR**
Hemicycla efferata **CR**
Hemignathus parvus **VU**
Heteromys oasicus **EN**
Hyloxalus infraguttatus **NT**
Isoplexis isabelliana **EN**
Kokia kauaiensis **CR**
Lactuca palmensis **LC**
Laterallus spilonotus **VU**
Leiopelma hochstetteri **VU**
Leipoa ocellata **VU**
Lepidoblepharis montecanoensis **DD**
Ligusticum huteri **CR**
Lotus pyranthus **CR**
Loxops caeruleirostris **CR**
Mammillaria albicoma **EN**
Mastus claudia **VU**
Melanomys zunigae **CR**
Melicope mucronulata **CR**
Metastelma anegadense **CR**
Cordia rupicola **CR**
Crambe microcarpa **EN**
Cumarinia odorata **VU**
Cyanea procera **CR**
Cyclura cychlura **VU**
Cyclura stejnegeri **EN**
Dendroica subita **NT**
Discula lyelliana **CR**
Ducula galeata **EN**
Echium handiense **CR**
Epicrates monensis **EN**
Euastacus armatus **DD**
Euastacus bidawalis **EN**
Euastacus brachythorax **EN**
Euastacus claytoni **EN**
Euastacus dalagarbe **CR**
Euastacus diversus **EN**
Euastacus gamilaroi **CR**
Euastacus gumar **EN**
Euastacus hirsutus **EN**
Euastacus jagabar **CR**
Euastacus maccai **EN**
Euastacus mirangudjin **CR**
Euastacus pilosus **EN**
Euastacus rieki **EN**
Euastacus simplex **VU**
Euastacus sulcatus **VU**
Euastacus urospinosus **EN**
Euastacus wiowuru **NT**
Euastacus yarreansis **VU**
Euphorbia haeleeleana **EN**
Fritillaria epirotica **EN**
Gardenia brighamii **CR**
Geomitra grabhami **CR**
Gouania vitifolia **CR**
Hemicycla paeteliana **CR**
Hesperomannia arborescens **CR**
Hibiscadelphus woodii **CR**
Iguana delicatissima **EN**
Isotomus jarmilae **EN**
Kunkeliella psilotoclada **CR**
Larus audouinii **NT**
Ledebouria insularis **EN**
Leiostyla macilenta **VU**
Lepidoblepharis colombianus **DD**
Leptochloa ginae **EN**
Limonium sventenii **CR**
Loxioides bailleui **CR**
Macaca sylvanus **EN**
Mastus amenazada **VU**
Megapodius laperouse **EN**
Melicope haupuensis **CR**
Melicope saint-johnii **EN**
Microcavia shiptoni **NT**

Micromeria glomerata **CR**
Mimus melanotis **EN**
Minuartia dirphya **CR**
Moho bishopi **EX**
Montivipera bornmuelleri **EN**
Myadestes obscurus **VU**
Myiarchus semirufus **EN**
Naufraga balearica **CR**
Nesillas aldabrana **EX**
Nothocestrum peltatum **CR**
Obelus moratus **VU**
Ochrosia inventorum **CR**
Oldenlandia adscensionis **EX**
Oreomystis mana **EN**
Parvilacerta fraasii **EN**
Pennantia baylisiana **CR**
Petrogale penicillata **NT**
Picris willkommii **EN**
Pinguicula nevadensis **EN**
Podarcis lilfordi **EN**
Portulaca samhaensis **EN**
Procellaria westlandica **VU**
Pseudonestor xanthophrys **CR**
Psittirostra psittacea **CR**
Pterodroma arminjoniana **VU**
Pterodroma brevipes **VU**
Pterodroma externa **VU**
Pterodroma longirostris **VU**
Pterodroma phaeopygia **CR**
Pterodroma solandri **VU**
Ptilinopus huttoni **VU**
Puffinus newelli **EN**
Quercus cedrosensis **VU**
Ribes sardoum **CR**
Salvia herbanica **CR**
Scalesia atractyloides **CR**
Scalesia incisa **VU**
Scalesia stewartii **VU**
Schiedea kaalae **CR**
Silene holzmannii **EN**
Somuncuria somuncurensis **CR**
Sylvilagus graysoni **EN**
Tephrosia pondoensis **VU**
Thymus carnosus **NT**
Todiramphus godeffroyi **CR**
Triplax emgei **VU**
Tumbezia salvini **NT**
Vini ultramarina **EN**
Xerosecta giustii **CR**
Mimus macdonaldi **VU**
Mimus trifasciatus **CR**
Mogera uchidai **DD**
Monilearia granostriata **CR**
Munroidendron racemosum **CR**
Myadestes palmeri **CR**
Napaeus lichenicola **VU**
Neraudia ovata **CR**
Nesotriccus ridgwayi **VU**
Obelus discogranulatus **EN**
Oceanodroma macrodactyla **CR**
Ochrosia kilaueaensis **CR**
Oligosoma acrinasum **NT**
Paroreomyza montana **EN**
Pelargonium insularis **CR**
Peromyscus madrensis **EN**
Phyllodactylus leei **VU**
Pinaroloxias inornata **VU**
Podarcis levendis **VU**
Pomarea nukuhivae **EX**
Pritchardia glabrata **EN**
Proechimys decumanus **VU**
Pseudosphegesthes bergeri **EN**
Pteralyxia kauaiensis **EN**
Pterodroma baraui **EN**
Pterodroma cervicalis **VU**
Pterodroma feae **NT**
Pterodroma madeira **EN**
Pterodroma sandwichensis **VU**
Pteropus mariannus **EN**
Puffinus creatopus **VU**
Puffinus opisthomelas **NT**
Rhionaeschna galapagoensis **EN**
Ruprechtia apetala **LR/nt**
Scalesia aspera **VU**
Scalesia divisa **CR**
Scalesia retroflexa **VU**
Scalesia villosa **VU**
Sideritis marmorea **CR**
Sinapidendron sempervivifolium **EN**
Stenopterus creticus **EN**
Teline rosmarinifolia **EN**
Theba impugnata **VU**
Tinostoma smaragditis **EN**
Todiramphus ruficollaris **VU**
Trochetiopsis ebenus **CR**
Vermivora crissalis **NT**
Xantusia riversiana **LC**
Zelkova abelicea **VU**

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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.
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