Canis lupus

System: Terrestrial

<table>
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<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
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<td>Chordata</td>
<td>Mammalia</td>
<td>Carnivora</td>
<td>Canidae</td>
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</table>

Common name
Haushund (German), feral dog (English), domestic dog (English), kuri (Maori, New Zealand), guri (Maori), kurio (Tuamotuan), uli (Samoan), peto (Marquesan), pero (Maori)

Synonym
Canis dingo, Blumenbach, 1780
Canis familiaris, Linnaeus, 1758

Similar species

Summary
Canis lupus (the dog) is possibly the first animal to have been domesticated by humans. It has been selectively bred into a wide range of different forms. They are found throughout the world in many different habitats, both closely associated with humans and away from habitation. They are active hunters and have significant negative impacts on a wide range of native fauna.

Species Description
Domestic dogs are believed to have first diverged from wolves around 100,000 years ago. Around 15,000 years ago dogs started diverging into the multitude of different breeds known today. This divergence was possibly triggered by humans changing from a nomadic, hunting based-lifestyle to a more settled, agriculture-based way of life (Vilà et al. 1997). Domestic dogs have been selectively bred for various behaviours, sensory capabilities and physical attributes, including dogs bred for herding livestock (collies, shepherds, etc.), different kinds of hunting (pointers, hounds, etc.), catching rats (small terriers), guarding (mastiffs, chows), helping fishermen with nets (Newfoundlands, poodles), pulling loads (huskies, St. Bernards), guarding carriages and horsemen (Dalmatians), and as companion dogs. Domestic dogs are therefore extremely variable but the basic morphology is that of the grey wolf, the wild ancestor of all domestic dog breeds.
Notes
Dogs were possibly the first animal to be domesticated by humans around 15,000 years ago. There are estimated to be 400,000,000 dogs present in the world. Dogs taken to the Pacific islands by the early Polynesians may have been about the size of a small collie, but shorter in the leg (Anderson 1990). They have long since been replaced by, or crossed with, various breeds from Europe. Reviewed by Mech (1974, Mammalian Species, 37) Canis familiaris has page priority over Canis lupus in Linnaeus (1758), but both were published simultaneously, and C. lupus has been universally used for this species [excerpted from Mammal Species of the World, 3d Edition, p. 281] (ITIS, 2004).

Uses
Domesticated dogs have been bred to assist humans in a wide range of activities including farming, hunting and companionship.

Habitat Description
Dogs are usually closely associated with humans so can potentially be found in all habitats. Feral and ranging domestic dogs may be found far from human habitation.

Reproduction
Placental, sexual. 4-12 puppies per litter. Both males and females become sexually mature at around 6-12 months.

Nutrition
Mainly carnivorous but may eat plant material and invertebrates
General Impacts
In Israel, free-ranging feral dogs are a major threat to populations of endangered mountain gazelles (see *Gazella gazella ssp. gazella* in IUCN Red List of Threatened Species) (Manor and Salz, 2004). Canine Distemper Virus (CDV) is thought to have caused several fatal epidemics within the Serengeti-Mara ecosystem in East Africa. The source of the CDV was probably domestic dogs in the local villages surrounding the park. The canids affected included silver-backed jackals (*Canis mmesomelas*) and bat-eared foxes (*Otocyon megalotis*) in 1978 and endangered African wild dogs (see *Lycaon pictus* in IUCN Red List of Threatened Species) in 1991. The Serengeti lion population (see *Panthera leo* in IUCN Red List of Threatened Species) which remained unaffected during these two epidemics was hit by an epidemic in early 1994, caused by a morbillivirus which is closely related to CDV. Later that year the epidemic had spread north to lions, hyenas, bat-eared foxes and leopards in the Maasi Mara National reserve. This epidemic claimed at least 30% of the lion population (estimated at 3000 in Serengeti at that time). It is suggested that the possible route of transmission from domestic dogs was the spotted hyena that range through human habitation and travel long distances within the park (Roelke-Parker et al. 1996).

Uncontrolled domestic dogs can be equally as damaging as truly feral animals. In New Zealand, during study of kiwi (see *Apteryx australis; Apteryx haastii; Apteryx mantelli;* and *Apteryx owenii* in IUCN Red List of Threatened Species) in a Northland forest, the loss of 13 out of 23 kiwi fitted with transmitters was found to be the result of predation by one German shepherd dog. It was estimated that this single dog alone had killed 500 out of 900 birds, although this estimate was considered to be possibly conservative (Taborsky 1988). Seabirds and mammals are included among the prey taken by feral dogs (e.g. Dickman, 1996, Stevenson and Woelher, 2007).

Management Info
The principal techniques to control wild dogs are exclusion fencing, shooting, trapping and poisoning. Poisoning using 1080 is the most cost-effective means of reducing populations of wild dogs over large areas of remote or inaccessible country. New techniques such as the use of livestock guarding dogs, poison ejecting devices and toxic collars have been suggested as alternatives to current methods.

The Australian Bureau of Rural Sciences (BRS) in cooperation with the Vertebrate Pests Committee of the Standing Committee on Agriculture and Resource Management (SCARM) has published guidelines for managing the impacts of dingoes (*Canis lupus dingo*) and other wild dogs (*C.l. familiaris*) as part of the Managing Vertebrate Pests series. Please follow this link to view and download Fleming, P., Corbett, L., Harden, R. and Thomson, P. (2001) Managing the Impacts of Dingoes and Other Wild Dogs, Bureau of Rural Sciences, Canberra.

Pathway

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
FULL ACCOUNT FOR: *Canis lupus*

**ALIEN RANGE**

1. ANGUILLA  
2. AUSTRALIA  
3. CAYMAN ISLANDS  
4. DOMINICAN REPUBLIC  
5. FIJI  
6. FRENCH POLYNESIA  
7. GUAM  
8. JAMAICA  
9. MADAGASCAR  
10. MARSHAI MARA RESERVE  
11. MICRONESIA, FEDERATED STATES OF  
12. NEW CALEDONIA  
13. NIUE  
14. PAPUA NEW GUINEA  
15. SAINT LUCIA  
16. SERENGETI-MARA ECOSYSTEM  
17. TOKELAU  
18. TURKS AND CAICOS ISLANDS  
19. UNITED STATES MINOR OUTLYING ISLANDS  
20. UNITED STATES  
21. UNITED STATES MINOR OUTLYING ISLANDS

**Red List assessed species 191:** EX = 8; CR = 28; EN = 52; VU = 53; NT = 31; DD = 4; LC = 15;

- *Aepypodius bruijni* EN
- *Amblysomus corriae* NT
- *Anas wvilliana* EN
- *Aplonis santovestris* VU
- *Apteryx haasti* VU
- *Aramidopsis plateni* VU
- *Ardeotis nigriceps* CR
- *Atelocynus microtis* NT
- *Brachypteracias squamiger* VU
- *Camarhynchus pauper* CR
- *Capreolus capreolus* LC
- *Celestus anelpistus* CR
- *Charadrius melodus* NT
- *Charadrius sanctaehelenae* CR
- *Chrysocyon brachyurus* NT
- *Coturnix novaezelandiae* EX
- *Ctenosaura bakeri* CR
- *Cuon alpinus* EN
- *Alauda razae* CR
- *Anas chlorotis* EN
- *Anolis longiceps* VU
- *Apteryx australis* VU
- *Apteryx mantelli* EN
- *Arctocephalus galapagoensis* EN
- *Arvicola sapidus* VU
- *Atelopus guanujo* CR
- *Burhinus grallarius* NT
- *Canis simensis* EN
- *Casuarius bennetti* NT
- *Celestus warreni* CR
- *Charadrius obscurus* EN
- *Chlamyphorus truncatus* DD
- *Conilurus penicillatus* NT
- *Cryptoprocta ferox* VU
- *Ctenosaura palearis* EN
- *Cyclura carinata* CR
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Procaxia parkinsoni  VU
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Pseudomyx fumeus  EN
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Pterodroma brevipes  VU
Pterodroma hasitata  EN
Pterodroma phaeopygia  CR
Pteropus pselaphon  CR
Pudu puda  VU
Puffinus heinrothi  VU
Puffinus opisthomelas  NT
Rallina leucopla  NT
Rattus richardsoni  VU
Rhionaeschna galapagoensis  EN
Rhynochetos jubatus  EN
Scolopax mire  VU
Solenodon cubanus  EN
Spheniscus mendiculus  EN
Sterna albostrata  EN
Suta flagellum  LC
Sylvilagus varnaensis  DD
Tamias palmeri  EN
Tarsius lariang  DD
Tarsius tarsier  VU
Thinornis rubricollis  NT
Tokudaia osimensis  EN
Tupaia nicobarica  EN
Vermivora crissalis  NT
Zalophus wolfebaeki  EN

Porzana sandwichensis  EX
Potorous tridactylus  LC
Procyon pygmaeus  CR
Pseudobulweria rostrata  NT
Psittirostra psittacea  CR
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Pterodroma externa  VU
Pterodroma longirostris  VU
Pterodroma sandwichensis  VU
Pudu mephistophiles  VU
Puffinus creatopus  VU
Puffinus newelli  EN
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Rallus semiplumbeus  EN
Reithrodontomys spectabilis  CR
Rhynchomeles prattorum  EN
Sarcophilus harrisii  EN
Sminthopsis butleri  VU
Solodon paradoxus  EN
Spilogale pygmaea  VU
Sterna nereis  VU
Sylvilagus bachmani  LC
Syrmaticus soemmerringii  NT
Tarsius dentatus  VU
Tarsius pelengensis  EN
Terrapene carolina  VU
Thomomys mazama  LC
Tokudaia tokunoshimensis  EN
Uratelornis chicaera  VU
Vestiaria coccinea  VU

BIBLIOGRAPHY
38 references found for Canis lupus

Management information

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.


Summary: The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on taxa that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those taxa that are facing a higher risk of global extinction (i.e. those listed as Critically Endangered, Endangered and Vulnerable). The IUCN Red List also includes information on taxa that are categorized as Extinct or Extinct in the Wild; on taxa that cannot be evaluated because of insufficient information (i.e. are Data Deficient); and on taxa that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e. are Near Threatened).
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.
K?rntner, G. 2007. 1080 aerial baiting for the control of wild dogs and its impacts on spotted-tailed quoll (Dasyurus maculatus). Wildlife Research 34: 48-53
Summary: Spotted quolls were radio-tracked to assess the effect an aerial poison operation to control wild dogs may have on quoll survival. The result suggested most quolls are able to survive baiting campaigns
Summary: The Bureau of Rural Sciences National Feral Animal Control Program under the Natural Heritage Trust has supported the Pest Animal Control CRC in cooperation with the University of Canberra to develop a comprehensive, interactive and freely available website, Feral.org.au on pest animals. The site aims to make information on past and current research readily accessible and to interpret and pull together relevant data to assist end-users in making management decisions.
The website is available from http://www.feral.org.au/content/general/about.cfm
This page is available from: http://www.feral.org.au/content/species/dog.cfm
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

Summary: English:
The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates.

Invasive species - mammals is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Mam%C3%ADferos [Accessed 30 July 2008]

Spanish:
La lista de especie del Sistema de informaci?n sobre especies invasoras de m?xico cuenta actualmente con informaci?n acerca de nombre cient?fico, familia, grupo y nombre com?n, as? como ?bitat, estado de la invasi?n en M?xico, rutas de introducci?n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p?gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci?n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci?n de novedades, para conocer los cambios.

Especies invasoras - Mam?feros is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Mam%C3%ADferos [Accessed 30 July 2008]

De Thoisy, pers. comm., 2007

Summary: Personal communication with Benoit de Thoisy from the association Kwata, an expert of the vertebrate fauna of french Guiana.


Summary: Abstract only online,


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


Summary: Available from: http://www.iucnredlist.org/apps/redlist/details/8833/0 [Accessed 1 February 2012]


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.


Summary: Dogs were found to impact endangered gazelle populations

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


Summary:


Summary:

http://www.conabio.gob.mx/invasoras/index.php/Portada Download the freely accessible data and collection information from the Global biodiversity information facility database


Summary:

http://www.conabio.gob.mx/invasoras/index.php/Portada Download the freely accessible data and collection information from the Global biodiversity information facility database


Summary: Available online in PDF format at www.canids.org