Canis lupus

System: Terrestrial

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

view this species on IUCN Red List

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 They have long since been replaced by, or crossed with, various breeds from Europe.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**

**Review:**

**Publication date:** 2010-09-15

**ALIEN RANGE**

[1] ANGUILLA
[1] AUSTRALIA
[3] CAYMAN ISLANDS
[1] DOMINICAN REPUBLIC
[5] FIJI
[1] GUAM
[1] JAMAICA
[1] MADAGASCAR
[1] MASAI MARA RESERVE
[3] MICRONESIA, FEDERATED STATES OF
[4] NEW CALEDONIA
[1] NIUE
[1] PAPUA NEW GUINEA
[1] SAINT LUCIA
[1] SERENGETI-MARA ECOSYSTEM
[1] TOKELAU
[3] TURKS AND CAICOS ISLANDS
[1] UNITED STATES MINOR OUTLYING ISLANDS

**Red List assessed species 191:**

- **EX = 8:** Alauda razae, Arctocephalus galapagoensis
- **CR = 28:** Anas chlorotis, Anolis longiceps, Aplonis santovestris, Apteryx australis, Apteryx mantelli, Burhinus grallarius, Canis simensis, Charadrius sanctaeherelae, Chlamyphorus truncatus, Conilurus penicillatus, Cryptoprocta ferox, Cuon alpinus
- **EN = 52:** Aepypodius bruijni, Alauda razae, Anas chlorotis, Anolis longiceps, Aplonis santovestris, Apteryx australis, Apteryx mantelli, Arctocephalus galapagoensis, Ardeotis nigriceps, Arvicola sapidus, Atelopus guanujo, Brachypteracas squamiger, Camarhynchus pauper, Capreolus capreolus, Charadrius melodus, Charadrius sanctaeherelae, Chrysocyon brachyurus, Coturnix novaezelandiae, Ctenosaura bakeri, Ctenosaura palearis
- **VU = 53:** Arachnothera bruijni, Anas wyvilliana, Apteryx australis, Apteryx mantelli, Arvicola sapidus, Atelopus guanujo, Brachypteracas squamiger, Camarhynchus pauper, Capreolus capreolus, Charadrius melodus, Charadrius sanctaeherelae, Chrysocyon brachyurus, Coturnix novaezelandiae, Ctenosaura bakeri
- **NT = 31:** Aepypodius bruijni, Alauda razae, Anas chlorotis, Anolis longiceps, Aplonis santovestris, Apteryx australis, Apteryx mantelli, Arctocephalus galapagoensis, Ardeotis nigriceps, Arvicola sapidus, Atelopus guanujo, Brachypteracas squamiger, Camarhynchus pauper, Capreolus capreolus, Charadrius melodus, Charadrius sanctaeherelae, Chrysocyon brachyurus, Coturnix novaezelandiae, Ctenosaura bakeri, Ctenosaura palearis
- **DD = 4:** Aepypodius bruijni, Alauda razae, Anas chlorotis, Anolis longiceps
- **LC = 15:** Aepypodius bruijni, Alauda razae, Anas chlorotis, Anolis longiceps, Aplonis santovestris, Apteryx australis, Apteryx mantelli, Arctocephalus galapagoensis, Ardeotis nigriceps, Arvicola sapidus, Atelopus guanujo, Brachypteracas squamiger, Camarhynchus pauper, Capreolus capreolus, Charadrius melodus, Charadrius sanctaeherelae, Chrysocyon brachyurus, Coturnix novaezelandiae, Ctenosaura bakeri, Ctenosaura palearis

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Porphyrio kukwiedei EX
Porosurus longipes EN
Procercaria parkinsoni VU
Pseudolopex fulvipes CR
Pseudomys fumeus EN
Pterodroma axillaris EN
Pterodroma brevipes VU
Pterodroma hasitata EN
Pterodroma phaeopygia CR
Pteropus pselaphon CR
Pudu puda VU
Puffinus heinrothi VU
Puffinus opisthomelas NT
Rallina leucospila NT
Rattus richardsoni VU
Rhionaeschna galapagoensis EN
Rhynochetos jubatus EN
Scoplopax mira VU
Solenodon cubanus EN
Spheniscus mendiculus EN
Sterna albostriata EN
Sula flagellum LC
Sylviagrus varynaeensis DD
Tamias palmeri EN
Tarsius lariang DD
Tarsius tarsier VU
Thinornis rubricollis NT
Tokudaia osimensis EN
Tupaia nicobarica EN
Vermivora crissalis NT
Zalophus wollebaeki EN
Porzana sandwichensis EX
Potorous tridactylus LC
Procyon pygmaeus CR
Pseudobulweria rostrata NT
Psittirostra psittacea CR
Pterodroma barau EN
Pterodroma externa VU
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Pterodroma sandwichensis VU
Pudu mephistophiles VU
Puffinus creatopus VU
Puffinus newelli EN
Rallina canningi NT
Rallus semiplumbeus EN
Reithrodontomys spectabilis CR
Rhynchosomatidae prattorum EN
Sarcophilus harrisii EN
Sminthopsis butleri VU
Solenodon paradoxus EN
Spilogale pygmaea VU
Sternula nereis VU
Sylvilagus bachmani LC
Syrnaticus soemmerringii NT
Tarsius dentatus VU
Tarsius pelengensis EN
Terrapene carolina VU
Thomomys mazama LC
Tokudaia tokunoshimensis EN
Uratelornis chimera 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?rtner, 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: 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]

De Thoisy, personal communication, 2007

Summary: Personal communication with Benoît 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]


ITIS (Integrated Taxonomic Information System), 2004. Online Database Canis lupus


Summary: Dogs were found to impact endangered gazelle populations

Meyer, J.-Y. personal communication, 2007


