**Canis lupus**

System: Terrestrial

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animalia</td>
<td>Chordata</td>
<td>Mammalia</td>
<td>Carnivora</td>
<td>Canidae</td>
</tr>
</tbody>
</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

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 They have long since been replaced by, or crossed with, various breeds from Europe.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


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
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
[1] NETHERLANDS ANTILLES
[2] NEW ZEALAND
[3] NORTHERN MARIANA ISLANDS
[2] SAINT HELENA
[1] SERENGETI-MARA ECOSYSTEM
[1] TOKELAU
[3] TURKS AND CAICOS ISLANDS
[1] UNITED STATES MINOR OUTLYING ISLANDS

[1] ANTIQUE AND BARBUDA
[1] BAHAMAS
[2] COOK ISLANDS
[2] ECUADOR
[1] FRENCH GUIANA
[1] GERMANY
[1] HAITI
[9] KIRIBATI
[1] MARSHALL ISLANDS
[1] MEXICO
[1] NAURU
[1] NIUE
[1] PAPUA NEW GUINEA
[1] SAINT LUCIA
[1] SOLOMON ISLANDS
[2] TONGA
[8] UNITED STATES
[2] VIRGIN ISLANDS, BRITISH

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

Aepypodius bruijni EN
Amblysomus corrae NT
Anas wvilliana EN
Aplonis santovestris VU
Apteryx haasti VU
Aramidopsis plateni VU
Ardeotis nigriceps CR
Atelocybus micros NT
Brachypetraeacia squamiger VU
Camarhynchus pauper CR
Capreolus capreolus LC
Celestus anelipistus CR
Charadrius melodus NT
Charadrius sanctaelehenae CR
Chrysocyon brachyurus NT
Coturnix novaevelandiae 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
FULL ACCOUNT FOR: *Canis lupus*

- **Cyclura collei** CR
- **Cyclura lewisi** CR
- **Cyclura ricordii** CR
- **Dasyurus hallucatus** EN
- **Dasyurus spartacus** NT
- **Dipodomys margaritae** CR
- **Ducula pickeringii** VU
- **Eudyptes pachyrhynchus** VU
- **Eurynorhynchus pygmeus** CR
- **Fossa fossana** NT
- **Galidia elegans** LC
- **Galidictis grandidier** EN
- **Gallicolumba sanctaeccruis** EN
- **Gallinula pacifica** CR
- **Gallirallus calayanensis** VU
- **Gallirallus rivi** CR
- **Gallotia simonyi** CR
- **Geocapromys brownii** VU
- **Gymnomyza aubryana** CR
- **Habroptila wallacii** VU
- **Hippocamelus antisensis** VU
- **Hippogomys antimenta** EN
- **Iguana delicatissima** EN
- **Laterallus spilonotus** VU
- **Leipoa ocellata** VU
- **Lepidochelys olivacea** VU
- **Lycoptera picta** EN
- **Macrotarsomys ingens** EN
- **Mallomys gunung** EN
- **Mazama nana** DD
- **Megapodius bernsteinii** VU
- **Megapodius laperozus** EN
- **Megapodius pritchardii** EN
- **Mesitornis unicolor** LC
- **Microperoryctes longicauda** LC
- **Monias benschi** VU
- **Mysateles prehensilis** NT
- **Neotoma bryanti** EN
- **Numenius tahitiensis** VU
- **Papagomys armandvillei** NT
- **Pentalagus furnessi** EN
- **Petrogale penicillata** LC
- **Plagiodontia aedium** EN
- **Pitta anerythra** VU
- **Pluvianellus socialis** NT

Porphyrio kukuwiedei EX
Potorous longipes EN
Procellaria parkinsoni VU
Pseudalopex 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 leucopla EN
Rattus richardsoni VU
Rhionaeschna galapagoensis EN
Rhynchosets jubatus EN
Scolopax mire VU
Solenodon cubanus EN
Spheniscus mendiculus EN
Sterna albostriata EN
Sula flagellum LC
Sylvilagus varynaensis 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
Pterodroma baraui EN
Pterodroma externa VU
Pterodroma longirostris VU
Pterodroma sandwichensis VU
Pudu mephistophiles VU
Puffinus creatopus VU
Puffinus newelli EN
Rallina canningi NT
Rallus semiplumbeus EN
Reithrodontomys spectabilis CR
Rhynchonetta prattorum EN
Sarcophilus harrisii EN
Sminthopsis butleri VU
Solenodon paradoxus EN
Spilogale pygmaea VU
Stera nereis VU
Sylvilagus bachmani LC
Syrmaticus soemmerringii NT
Tarsius dentatus VU
Tarsius pelengensis EN
Terrapene carolina VU
Thomomys mazama LC
Tokudaia tokunoshimensis EN
Uratelornis chimaera 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.


IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. 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).

Available from: http://www.iucnredlist.org/ [Accessed 25 May 2011] IUCN/SSC Invasive Species Specialist Group (ISSG), 2010. A Compilation of Information Sources for Conservation Managers. 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.

Lapidge, Bourne, Braysher, and Sarre., 2004- present feral.org.au [Online]. Web-based (http://www.feral.org.au) 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


Pacific Invasives Initiative (PII), 2006a. Viwa Island Restoration Project


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


Canis lupus


Canis lupus


Canis lupus

**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 specialized 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.

**Spanish:**
La lista de especies del Sistema de informaci?n sobre especies invasoras en 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 l?gica 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 novedades, para conocer los cambios.

**Conclusions:**
- The impact of exotic generalist predators on the native fauna of Australia. 
- An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. Additional 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:** 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:** Available from: http://www.conabio.gob.mx/invasoras/index.php/Portada?o_taxon=162663 [Accessed 14 March 2008]


