

Canids: Foxes, Wolves, Jackals and Dogs



Status Survey and Conservation Action Plan

Canids: Foxes, Wolves, Jackals and Dogs

**Edited by Claudio Sillero-Zubiri, Michael Hoffmann
and David W. Macdonald**

IUCN/SSC Canid Specialist Group

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Foreword

As humans usurp more and more of the Earth, and the natural world continues to shrink, carnivores will bear a disproportionate toll of the effects. This is because carnivores tend to have larger home ranges, more extensive movements, and longer dispersal distances than their prey, so their spatial requirements bring them into greater contact with humans. Furthermore, carnivores tend to conflict directly with human interests because of the proclivity of many of them to kill animals that humans use themselves.

Canids form one of the most prominent families of carnivores, with 36 interesting taxa in 13 genera that occur throughout most of the world. Foxes, dholes, dingoes, wolves, jackals, coyotes and various dogs comprise the family, and they find human-raised livestock irresistible prey. As a family, canids occupy every continent except Antarctica. The grey wolf, alone, was originally the most widely distributed terrestrial mammal; its successor to the throne is another successful canid, the red fox. Thus, canids have borne a high proportion of the conflict between humans and carnivores. The more prolific and adaptable canids, like the jackal and coyote, have fared well despite this competition, while the more specialised members of the family, like the Ethiopian wolf, have become threatened with extinction.

However, whatever the past or present status of a particular canid species, we can be sure that the future will present new problems as human populations grow, intrude on natural habitat, and convert more of the Earth to their

own liking. Whether the issue is habitat loss, direct competition, or disease spread (both from canids to humans as with rabies, or from human sources to canids, such as canine parvovirus from domestic dogs to wolves), increasing human pressure means that canids face an uncertain future.

Fortunately, some humans have taken notice and have decided to assess the situation systematically. Through the World Conservation Union's (IUCN) Species Survival Commission, the Canid Specialist Group has developed this Action Plan for Canid Conservation. Editors Claudio Sillero-Zubiri, Michael Hoffmann and David Macdonald have assembled here an impressive collection of information about all living canid species and the conservation problems they face. From genetics to diseases, conflict resolution to reintroduction, this Canid Action Plan not only covers the basics, but also addresses the most pressing issues for canid conservation in a comprehensive manner.

Perusing this wealth of well-organised and important information is enough to give one hope that, despite the many problems canids face, this mobilisation of information and planning will help ensure the survival of all these intriguing species that comprise the family Canidae.

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Eight-week old island fox pup (*Urocyon littoralis*). Santa Rosa Island, California, USA, 2001.

Don Jones

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Executive Summary

The new Canid Action Plan synthesises the current knowledge on the biology, ecology and status of all wild canid species, and outlines the conservation actions and projects needed to secure their long-term survival. Aiming at conservation biologists, ecologists, local conservation officials, administrators, educators, and all others dealing with canids in their jobs, the authors aspire to stimulate the conservation of all canids by highlighting problems, debating priorities and suggesting action.

The 36 taxa of wild canids that comprise the family Canidae, ranging in size from the tiny fennec fox to the mighty grey wolf, and found in every continent except Antarctica, are special. They are special because they have, as perceived friend or foe, preoccupied the imaginations of mankind for millennia; because the breadth of their adaptations makes them enthralling to science; and because the contradictory facets of their relations with people perplex the conservationist. The increase in numbers of people, the spread of settlement, and the exploitation of natural resources of previously little-disturbed wild lands, together with persecution, are threatening some of these canids with extinction. The possibility that we are heedlessly, perhaps needlessly, mismanaging many of them is saddening; the probability that our negligence will force several more to extinction should fill us with bottomless dismay. It demands action, and that is why we have compiled this new Canid Action Plan.

Following a short introduction and a chapter on phylogeny, classification, and evolutionary ecology of the Canidae (Part 1), Part 2 provides the latest information on the distribution, biology and conservation status of each species, organised by geographical region. The accounts also list current field projects, and their contact details are provided in an appendix. The Canid Specialist Group's members are active worldwide. Nine of the 36 taxa covered are threatened (3 Critically Endangered, 3 Endangered and 3 Vulnerable), and one is considered Near Threatened. Six species (7%) were listed as Data Deficient, and 20 (56%) species as Least Concern (Appendix 1). The threatened canids are:

- Darwin's fox (CR). Until recently, known only from the Island of Chiloé (Chile) until rediscovered 600km away in the coastal mountains, where domestic dogs threaten them with disease or direct attack.
- Red wolf (CR). Currently the subject of taxonomic debate, red wolves were declared Extinct in the Wild by 1980, but have been reintroduced into eastern North Carolina, where they are now locally common. Hybridisation with coyotes is the primary threat.
- Island fox (CR). Restricted to the six largest of the eight California Channel Islands, each island population is considered a separate subspecies, and four have declined precipitously. Threats include hyperpredation by golden eagles and the introduction of canine diseases.
- Ethiopian wolf (EN). Less than 500 individuals remain, confined to eight locations in the Ethiopian Highlands. Previously listed as Critically Endangered, continuous loss of habitat due to high-altitude subsistence agriculture remains the major threat, along with disease (particularly rabies).
- African wild dog (EN). Formerly distributed throughout sub-Saharan Africa, excluding rainforests, wild dogs have disappeared from 25 of the former 39 range states. More

than half of the mortality recorded among adults is caused directly by human activity.

- Dhole (EN). Formerly distributed across Asia, dholes have undergone widespread decline and are threatened by depletion of their prey base, habitat loss, persecution, competition and disease.
- Dingo (VU). Austronesian people transported the dingo from Asia to Australia and other islands in between 1,000 and 5,000 years ago. Pure dingoes occur only as remnant populations in central and northern Australia and in Thailand, and they are threatened by cross-breeding with domestic dogs.
- Bush dog (VU). Despite a supposedly widespread distribution in South American forests, this species is perceived as rare, and threatened by habitat conversion and human encroachment.
- Blanford's fox (VU). Present in arid mountainous regions of the Middle East and north-eastern Egypt eastwards to Afghanistan, where human development could pose a threat.

In contrast to the threats faced by threatened canids, several species are thriving in human-dominated landscapes and incur the loathing of farmers and hunters alike. Red foxes are notoriously successful in urban settings, and coyotes, golden jackals, crab-eating and kit foxes seem able to thrive amidst human settlements. Management prompted by rabies control, fur harvest, and livestock predation leads to the slaughter of hundreds of thousands of canids annually.

Part 3 of the Plan considers nine major issues in canid conservation, namely canid society, conservation genetics, assessing and managing diseases, management of canids near people, impact of exploitation and trade, survey and census techniques, captive conservation, reintroduction and meta-population management, and conservation education.

Part 4 is arguably the most important section. It includes a chapter on the need for setting priorities and measuring success in canid conservation, and the detailed Action Plan for canid conservation into the 21st century. Although we have sought to refine and consolidate these entries, they represent the views of the many experts around the world who suggested them, who debated them in our workshops and in the forum of our international congress, hosted by the WildCRU in Oxford in September 2001. The list of proposed projects makes no claim to be comprehensive, but it is the result of extremely wide consultation. The plan itself, together with the databases concerning existing members and research projects, are all available on the web at <http://www.canids.org>. The Action Plan was prepared in parallel with our edited monograph entitled *The Biology and Conservation of Wild Canids* (Oxford University Press, 2004) which contains comprehensive reviews of the science underpinning this Action Plan, together with 14 case studies of wild canid biology.

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