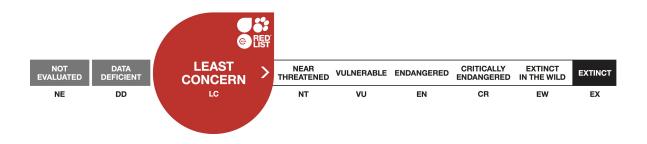


The IUCN Red List of Threatened Species™ ISSN 2307-8235 (online) IUCN 2008: T60354712A50652361

Felis silvestris, Wild Cat

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Citation: Yamaguchi, N., Kitchener, A., Driscoll, C. & Nussberger, B. 2015. *Felis silvestris. The IUCN Red List of Threatened Species 2015*: e.T60354712A50652361. http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T60354712A50652361.en

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Taxonomy

| Kingdom | Phylum | Class | Order | Family |
|----------|----------|----------|-----------|---------|
| Animalia | Chordata | Mammalia | Carnivora | Felidae |

Taxon Name: Felis silvestris Schreber, 1777

Regional Assessments:

- Mediterranean
- <u>Europe</u>

Common Name(s):

- English: Wild Cat, Wildcat
- French: Chat orné, Chat sauvage
- Spanish: Gato Montés, Gato Silvestre

Taxonomic Notes:

There is still no clear consensus in how to relate geographical variation in the morphology and genetics of the globally widespread Wildcat *Felis silvestris* to its taxonomy and systematics (Kitchener and Rees 2009). The latest phylogeographical analysis (Driscoll *et al.* 2007, Macdonald *et al.* 2010) suggests that the Wildcat consists of five subspecific groups, including three traditional subspecies (Nowell and Jackson 1996, Stuart *et al.* 2013): the African Wildcat (*F. s. lybica* Forster, 1780), the Asian Wildcat (*F. s. ornata* Gray, 1830), and the European Wildcat (*F. s. silvestris* Schreber, 1775), with the additional recent recognition of the Southern African Wildcat (*F. s. bieti* Milne-Edwards, 1822) and the incorporation of the Chinese Alpine Steppe Cat into the species (*F. s. bieti* Milne-Edwards, 1872). An alternative taxonomic treatment could be the treatment of *F. bieti*, *F. silvestris*, and *F. lybica* (including *ornata* and *cafra* as subspecies) as three recently radiated phylogenetic species (Kitchener and Rees 2009, Macdonald *et al.* 2010). The species concept used here, excludes *F. bietei* - this is assessed separately as a good species.

The familiar housecat was domesticated from the Wildcat (*F. s. lybica*), probably 9-10,000 years ago in the Fertile Crescent region of the Near East, coincident with the rise of agriculture and the need to protect harvests from grain-eating rodents, based on genetic, morphological and archaeological evidence (Driscoll *et al.* 2007, Macdonald *et al.* 2010). Although derived from the Wildcat relatively recently, for practical reasons the domestic cat is differentiated either as a separate species *F. catus* or subspecies *F. s. catus*. As noted by Macdonald *et al.* (2010), in terms of biological processes and phylogeny, whether domestic cats are treated as a subspecies of *F. silvestris* or a separate species might seem arbitrary. However, these taxonomic niceties are of the highest operational importance because the current legislation intended to protect the Wildcat is framed in terms that can be effective only if the Wildcat is recognized as a separate species. Domestics are different than other 'forms' of animals and arise through an unusual set of circumstances (i.e., proximity and familiarity with people). While the genetic relationship between domestic and wildcats is very close, Driscoll *et al.* (2007) did find evidence for a genetically distinct group of cats that corresponds to 'domestics'.

Assessment Information

Red List Category & Criteria: Least Concern ver 3.1

| Year Published: | 2015 |
|-----------------|----------------|
| Date Assessed: | April 20, 2014 |

Justification:

The Wild Cat is the most common and widely distributed wild felid, and thus listed as Least Concern. However, introgressive hybridization with domestic cats is considered extensive, and taking place across almost the entire range, potentially resulting in cryptic extirpations of some populations (Nowell and Jackson 1996; Macdonald *et al.* 2004, 2010; Driscoll *et al.* 2007, 2011). Although detailed information concerning introgression is not available for most parts of its distribution, based on less biased samplings, local introgression rate is estimated 20% in Swiss Jura (Nussberger *et al.* 2014), 36% in France (Say *et al.* 2012), and 43% in west Germany (Hertwig *et al.* 2009), and 46% of wild-living cats in France may belong to a non-Wild Cat group (Say *et al.* 2012), whilst the figure may be as high as 88% in Scotland (Kitchener *et al.* 2005). However, introgression may be evaluated differently in each of these studies, making comparisons problematic. Even less information is available to assess temporal changes in introgression rates. Future research on hybridization levels and fitness consequences of introgression may warrant a reassessment of the Wild Cat as a threatened species, owing to population declines of the Wild Cat.

Geographic Range

Range Description:

The Wild Cat has a very broad distribution, found throughout most of Africa, Europe, and southwest and central Asia into India, China, and Mongolia. Four major intraspecific phylogenetic groups, or subspecies (following Driscoll *et al.* 2007, Macdonald *et al.* 2010) are distributed as follows:

Steppe Wild Cat Lineage

The African Wild Cat *F. s. lybica* occurs across northern Africa and extends around the periphery of the Arabian Peninsula to the Caspian Sea (Driscoll *et al.* 2007), where it meets, and/or hybridizes with, the Asian Wild Cat (Harrison and Bates 1991, Heptner and Sludskii 1992). This extremely wide distributional range is accompanied by a very broad habitat tolerance, being apparently only absent from closed tropical forest. Although thinly distributed in true deserts, such as the Sahara, it occurs especially in association with hill and mountain country, such as the Hoggar. In North Africa it occurs discontinuously from Morocco through Algeria, Tunisia, Libya and into Egypt. It has an extensive distribution across the savannas of West Africa from Mauritania on the Atlantic seaboard, eastwards to the Horn of Africa, Sudan and Ethiopia; southwards it is present in all East and southern African countries (Stuart *et al.* 2013), where it is replaced by the Southern African Wild Cat *F.s. cafra* (Driscoll *et al.* 2007). At present the boundary between the two cannot be determined by available genetic samples, but morphological and biogeographical evidence suggests the break to occur in the southeast, in the area of Tanzania and Mozambique (Kitchener and Rees 2009). The Asian Wild Cat *F. s. ornata* occurs from the eastern Caspian into western India, and north to Kazakhstan, and into western China and southern Mongolia (Nowell and Jackson 1996, Driscoll *et al.* 2007).

Forest Wild Cat Lineage

The European Wild Cat *F. s. silvestris* was formerly very widely distributed in Europe and is absent only from Fennoscandia. Severe declines and local extirpations occurred in Europe between the late 1700s

and mid-1900s, resulting in a fragmented relict distribution (Stahl and Artois 1991, Nowell and Jackson 1996, Piechocki 2001). It became extinct in the Netherlands, but may be recently expanding its range from neighbouring countries to recolonize the country (Nowell and Jackson 1996, Canters *et al.* 2005). It was considered regionally extinct in Austria (Spitzenberger 2005), but vagrants still occur and the Italian population is spreading northwards into Austria (Lapini and Molinari 2006). It is possibly extinct in the Czech Republic (IUCN 2007). It occurs from sea level to 2,250 m in the Pyrenees (Palomo and Gisbert 2002). In some parts of the Wild Cat's distribution (e.g. Scotland, Stromberg in Germany) it is possible that, as a result of hybridization with the domestic cat, very few Wild Cats remain (Macdonald et al. 2004, Battersby 2005, Herrmann and Vogel 2005). Sicily is the only Mediterranean island populated by European Wild Cats; populations on other islands (including Sardinia and Corsica) are probably feral domestics stemming from Neolithic times (Gippoliti and Amori 2006, Macdonald *et al.* 2010, T. Viago in litt. 2009, Mattucci *et al.* 2013).

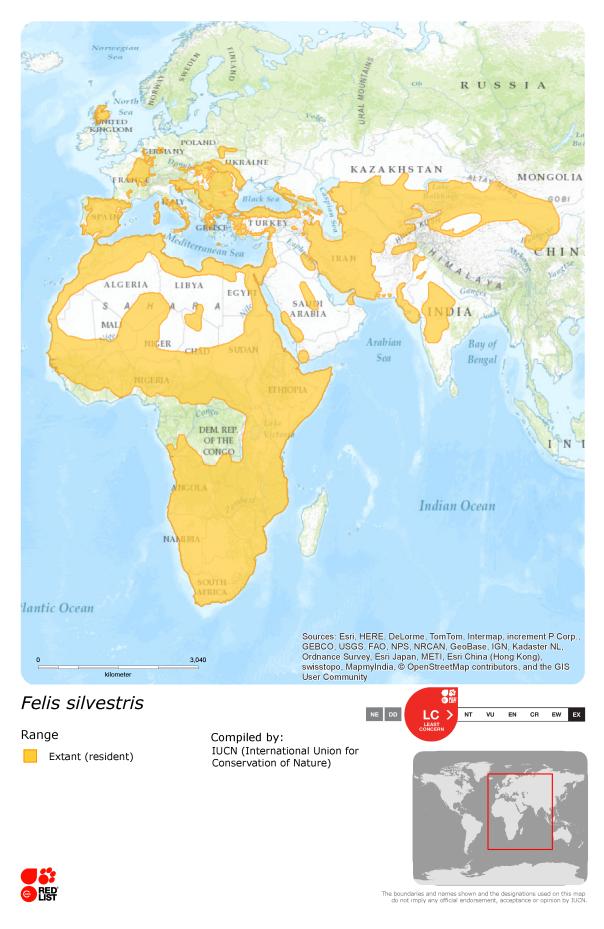
Country Occurrence:

Native: Afghanistan; Albania; Algeria; Andorra; Angola (Angola); Armenia (Armenia); Austria; Azerbaijan; Belarus; Belgium; Benin; Bosnia and Herzegovina; Botswana; Bulgaria; Burkina Faso; Burundi; Cameroon; Central African Republic; Chad; China; Congo; Congo, The Democratic Republic of the; Croatia; Djibouti; Egypt; Eritrea; Ethiopia; France; Gambia; Georgia; Germany; Ghana; Gibraltar; Greece; Guinea; Guinea-Bissau; Hungary; India; Iran, Islamic Republic of; Iraq; Israel; Italy; Jordan; Kazakhstan; Kenya; Kuwait; Kyrgyzstan; Latvia; Lebanon; Lesotho; Libya; Lithuania; Luxembourg; Macedonia, the former Yugoslav Republic of; Malawi; Mali; Mauritania; Moldova; Mongolia; Montenegro; Morocco; Mozambique; Namibia; Niger; Nigeria; Oman; Pakistan; Poland; Portugal; Romania; Russian Federation; Rwanda; Saudi Arabia; Senegal; Serbia (Serbia); Sierra Leone; Slovakia; Slovenia; Somalia; South Africa; South Sudan; Spain; Sudan; Swaziland; Switzerland; Syrian Arab Republic; Tajikistan; Tanzania, United Republic of; Togo; Tunisia; Turkey; Turkmenistan; Uganda; Ukraine; United Arab Emirates; United Kingdom; Uzbekistan; Western Sahara; Yemen; Zambia; Zimbabwe

Possibly extinct: Czech Republic

Regionally extinct: Netherlands

Distribution Map



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Population

The world's population of domestic cats, *Felis catus*, was estimated as c. 600 million (Baker *et al.* 2010), making the domesticated descendant of *Felis silvestris* one of the world's most numerous animals. However, domestic cats hybridise readily with Wildcats, and genetic analysis of "wildcat" samples found that most populations showed evidence of hybridisation (Nowell and Jackson 1996, Driscoll *et al.* 2007). There are probably very few, if any, "wildcat" populations which have little history of hybridisation with domestic cats. This introgression with domestic cats makes an estimation of Wildcat population size very difficult even in comparison to other similarly elusive wild felids. Morphological criteria and genetic markers have been developed that should help to resolve these problems (Schauenberg 1969, 1977, Randi and Ragni 1986, 1991, French *et al.* 1988, Beaumont *et al.* 2001, Reig *et al.* 2001, Pierpaoli *et al.* 2003, Yamaguchi *et al.* 2004a,b, Kitchener *et al.* 2005, Driscoll *et al.* 2007, 2011, Platz *et al.* 2011, Nussberger *et al.* 2013, 2014, Devillard *et al.* 2014).

In the Near East region, Wildcats occur at low population densities, and are threatened by habitat loss, fragmentation and degradation as well as hybridisation with domestic cats (Phelan and Sliwa 2006).

Most detailed population information is available about the European subspecies, *F.s. silvestris*, although there is still a lack of information regarding its current status and population trends. There have been no recent large-scale surveys or European regional reviews of the status of the species (Macdonald *et al.* 2004). During the European Mammal Assessment process (IUCN 2007), information (ranging from detailed national surveys to expert opinion) was collated for a number of European range states and is presented below, but this is by no means a comprehensive review. A review of the status of the Wildcat in Europe in the 1980s and early-mid 1990s can be found in Stahl and Artois (1991) and Nowell and Jackson (1996).

Scotland (UK): Recent estimates have varied between 1,000 and 4,000 (compared to 1.2 million feral cats in Britain), but as few as 400 cats which meet morphological and genetic criteria for being the furthest from the domestic group may survive (Macdonald *et al.* 2004, Battersby 2005, Kitchener *et al.* 2005, Macdonald *et al.* 2010). If so, this population would be Critically Endangered (Kitchener *et al.* 2005). A survey of mostly sightings from 2006-2008 confirmed that the overall distribution had changed little from the late 1980s, with most frequent sightings in eastern and central Scotland and a small area of the West (Davis and Gray, 2010). **Portugal**: The population is suspected to be decreasing (M. Fernandes pers. comm. 2006). Considered Vulnerable at the national level, on the basis of suspected declines reaching 30% over three generations in the past or future (Cabral *et al.* 2005).

Spain: In some places it is increasing and others decreasing (J. Herrero pers. comm. 2006). Considered Vulnerable at the national level, on the basis of suspected declines of over 30% over the last three generations (Palomo and Gisbert 2002).

Belgium: Evidence from Wildcats found dead on roads indicated that the species is gradually expanding its range to the north and west. There are no data on population size (Libois 2006).

Germany: The population was recently estimated at 1,700-5,000 individuals (Knapp *et al.* 2000). The population may be increasing and occupying new areas (M. Stubbe pers. comm. 2006, Hartmann *et al.* 2013). **France**: The presence of Wildcats was confirmed in an area of c. 155,000 km² in the north-eastern quarter of France and around the Pyrenees, but these two areas are separated by a wide zone with no wildcats (Say *et al.* 2012). Wildcats may have extended their range in France by c. 30% in the last 30 years, although a cautious interpretation is necessary (Say *et al.* 2012). **Switzerland**: Based on a

systematic survey, about 220-1300 km² of the Swiss Jura region are occupied by about 160-930 wildcats (95% CI, Swiss Wildcat Monitoring 2008-10, Federal Office of Environment). Since 1970, wildcats have extended their range to the South-West and East of the Jura (ref. within Nussberger *et al.* 2014). **Italy**: The population densities on Sicily based on camera trapping are 0.28 – 0.93 individuals per km², whilst an estimate based on individual identification using DNA extracted from scats estimated 1.36 individuals per km² (Anile *et al.* 2010, 2012, 2014).

Slovenia: The population is estimated (on the basis of population density and habitat suitability) at no more than 2,000; it is stable. Recently expanded highways possibly pose some threat in the South-East part of its high population density range. (B. Krytufek pers. comm. 2006)

Poland: Estimated number of wildcats in Poland is between 100 and 150 individuals and estimated population density is 1-1.3 per 1000 ha (Okarma *et al.* 2002). The current distribution of wildcat in the Polish Carpathians, mainly along the borders with Slovakia and Ukraine, shows that the Polish population forms a continuum with Slovakian and Ukrainian populations. Together they constitute the northernmost part of the larger Carpathian population of this species. The species is decreasing and is considered endangered (EN) in the Red Data Book of Poland (Wolsan and Okarma 2001).

Slovakia: The estimate of the Slovakian population in 2000 was about 1,500 individuals (unpublished data of the Slovak Environmental Agency: A. Olszanska pers. comm. 2006).

Serbia: There are large populations along the southern Danube (IUCN 2007).

Macedonia: The species is widespread (IUCN 2007).

Greece: The Wildcat is widespread in continental Greece with sightings in all forested areas and many wetlands. There are apparently more sightings in North and North-East Greece, where the population density seems to be higher. The population trend has not been quantified, but is believed to be stable. **Romania**: The population is estimated to number c.10,000 individuals, but this is not based on quantitative data (Red Data Book of Romania).

Bulgaria: There are no quantitative data, but the species is considered relatively abundant (Spassov *et al.* 1997).

European Russia: the population size and trend have not been quantified, but there are thought to be large, relatively stable populations (IUCN 2007).

In Scotland, 88% of wild-living cats may be hybrids or feral domestic cats (Kitchener et al. 2005), and in Italy and Hungary the proportion of hybrids is estimated at 8% and 25-31% respectively (Pierpaoli et al. 2003, Lecis et al. 2006). On the basis of museum specimens, the proportion of hybrids in Bulgaria was estimated at 8-10% (Spassov et al. 1997), but the extent of hybridisation may have increased since this study. The hybridisation rate was observed to be 14 % in Portugal (Oliveira et al. 2008), 4 % in eastern and 43 % in western Germany (Hertwig et al. 2009) and 36 % in France where 46% of wild-living cats may belong to a non-wildcat group (Say et al. 2012). In Switzerland, the introgression rate was estimated to be 20%, with a migration rate of 0-0.043 domestic migrants into the wildcat population per generation and 0-0.017 from wildcats into domestic cats (95% Cl, Nussberger et al. 2014). Wildcats of mixed origin have also been found in Belgium (Pierpaoli et al. 2003). In general the genetic distance to the domestic cat is larger in the north of the range than in the south (Pierpaoli et al. 2003) and introgression between Wildcat and domestic cat is less in Eastern European populations (Nowell and Jackson 1996). Outside Europe detailed studies on the extent of hybridisation are rare. Evidence of hybridisation has been found in southern Africa (Nowell and Jackson 1996, Yamaguchi et al. 2004b, Stuart et al. 2013) and North Africa (Stuart et al. 2013) although introgressive hybridisation between Wildcats and domestic cats may not be widespread in South Africa (Le Roux et al. 2014).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Wildcats are found in a wide variety of habitats, from deserts and scrub grassland to dry and mixed forest; absent only from rainforest and coniferous forest. European wildcats are primarily associated with forest and are found in highest numbers in broad-leaved or mixed forests with low population densities of humans. They are also found in Mediterranean maquis scrubland, riparian forest, marsh boundaries and along sea coasts. Areas of intensive cultivation and urbanisation are avoided. Wildcats in Africa are found everywhere outside tropical rainforest, although thinly distributed in true desert (Nowell and Jackson 1996). Asian Wildcats range up to 2,000 - 3,000 m in mountainous areas with sufficient vegetation, but are most typically associated with scrub desert (Nowell and Jackson 1996).

Rodents and lagomorphs are the staple of the Wildcat's diet across its range, with birds of secondary importance, although a variety of small prey is taken, and wildcats also scavenge (Nowell and Jackson 1996, Sunquist and Sunquist 2002).

Phelan and Sliwa (2006) found large home ranges (52.7 km² for a radio-collared female) in desert in the United Arab Emirates, larger than home ranges reported elsewhere in more optimal haibtat – 6 - 10 km² for females in South Africa's Kalahari Gemsbok National Park (Herbst and Mills 2005 in Stuart *et al.* 2013) and 1 - 2 km² for females in Scotland and France (Stahl *et al.* 1988, Macdonald *et al.* 2004).

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

In the past Asian Wild Cats were trapped in large numbers for their fur, although at present there is little international trade (Nowell and Jackson 1996).

Threats (see Appendix for additional information)

Wild Cats are most threatened by domestic cats. Although the lack of information, especially outside Europe, prevents us from drawing a general conclusion, hybridization is considered widespread; there may be very few Wild Cat populations remaining where there is little history of hybridization with the domestic cat (Nowell and Jackson 1996, Macdonald *et al.* 2004, Phelan and Sliwa 2006, Driscoll *et al.* 2007). Feral domestic cats also compete with Wild Cats for prey and space, and there is a high potential for disease transmission between domestic cats and Wild Cats (Nowell and Jackson 1996, Yamaguchi *et al.* 1996, Daniels *et al.* 1999, Macdonald *et al.* 2004).

Other threats include significant human-caused mortality, in Europe, especially road kills (Nowell and Jackson 1996, Lüps *et al.* 2002, Schulenberg 2005). The species is still considered a pest in Scotland and is illegally persecuted (Macdonald *et al.* 2004). Predator control measures in a number of European countries may result in this species being killed as bycatch, e.g. snaring and lamping in Scotland. Wild Cats are also killed as pests in southern Africa, although this does not seem to have resulted in population declines (Stuart *et al.* 2013). In the past Asian Wild Cats were trapped in large numbers for their fur, although at present there is little international trade (Nowell and Jackson 1996).

Historically, habitat loss led to dramatic declines in Europe and Russia in the 18th to mid-20th centuries (Macdonald *et al.* 2004). However, Wild Cats can do well in cultivated landscapes, which increase rodent population densities (Sunquist and Sunquist 2002), although these are the areas where hybridization

with domestic cats occurs and spreads.

Conservation Actions (see Appendix for additional information)

Included on CITES Appendix II (http://www.cites.org/eng/app/appendices.php). The Wild Cat is fully protected across most of its range in Europe and Asia, but only some of its African range (Nowell and Jackson 1996), although effective implementation of protection on the ground may be a different issue. The European Wild Cat is listed on the EU Habitats and Species Directive (Annex IV) as a "European protected species of animal". It is also listed in Appendix II of the Bern Convention. It is classed as threatened at the national level in many European range states (IUCN 2007). The Asian Wild Cat is legally protected in Afghanistan, having been placed on the country's first Protected Species List in 2009, which bans all hunting and trading of this species within Afghanistan. With so little information or data known on this species in Afghanistan, it is also proposed as a priority species for future study.

The main conservation need includes 1) identifying "wildcat" populations where there is little history of introgressive hybridization with domestic cat, 2) investigating the effects of hybridisation on the fitness of hybrid individuals, and 3) preventing hybridization by neutering and removing feral domestic cats if necessary. Such efforts have been complicated by the difficulty of distinguishing Wild Cats from domestic cats, especially when introgressive hybridization with domestic cats is extensive (Macdonald *et al.* 2004). However, morphological and genetic methods have been developed, tested, and improved to resolve these problems (Schauenberg 1969, 1977, Randi and Ragni 1986, 1991, French *et al.* 1988, Beaumont *et al.* 2001, Reig *et al.* 2001, Pierpaoli *et al.* 2003, Yamaguchi *et al.* 2004a,b, Kitchener *et al.* 2005, Driscoll *et al.* 2007, 2011, Platz *et al.* 2011, Nussberger *et al.* 2013, 2014, Devillard *et al.* 2014), and to save the Wild Cat from cryptic extinction before it is too late

Credits

| Assessor(s): | Yamaguchi, N., Kitchener, A., Driscoll, C. & Nussberger, B. |
|--------------|---|
| Reviewer(s): | Nowell, K., Hunter, L., Mallon, D., Hoffmann, M., Breitenmoser-Wursten, C., Lanz, |
| | T. & Breitenmoser, U. |

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Citation

Yamaguchi, N., Kitchener, A., Driscoll, C. & Nussberger, B. 2015. *Felis silvestris. The IUCN Red List of Threatened Species 2015*: e.T60354712A50652361. <u>http://dx.doi.org/10.2305/IUCN.UK.2015-</u>2.RLTS.T60354712A50652361.en

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External Resources

For Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

| Habitat | Season | Suitability | Major Importance? |
|--|----------|-------------|----------------------|
| 1. Forest -> 1.4. Forest - Temperate | Resident | Suitable | Yes |
| 1. Forest -> 1.5. Forest - Subtropical/Tropical Dry | Resident | Suitable | Yes |
| 2. Savanna -> 2.1. Savanna - Dry | Resident | Suitable | Yes |
| 2. Savanna -> 2.2. Savanna - Moist | Resident | Suitable | Yes |
| 3. Shrubland -> 3.4. Shrubland - Temperate | Resident | Suitable | Yes |
| 3. Shrubland -> 3.5. Shrubland - Subtropical/Tropical Dry | Resident | Suitable | Yes |
| 3. Shrubland -> 3.8. Shrubland - Mediterranean-type Shrubby Vegetation | Resident | Suitable | Yes |
| 4. Grassland -> 4.4. Grassland - Temperate | Resident | Suitable | Yes |
| 4. Grassland -> 4.5. Grassland - Subtropical/Tropical Dry | Resident | Suitable | Yes |
| 8. Desert -> 8.1. Desert - Hot | Resident | Marginal | - |
| 8. Desert -> 8.2. Desert - Temperate | Resident | Suitable | Yes |
| 8. Desert -> 8.3. Desert - Cold | Resident | Marginal | - |

Use and Trade

(http://www.iucnredlist.org/technical-documents/classification-schemes)

| End Use | Local | National | International |
|------------------------------|-------|----------|---------------|
| Wearing apparel, accessories | Yes | Yes | No |

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

| Threat | Timing | Scope | Severity | Impact Score | |
|--|---|--------------|-----------------------|-------------------|--|
| 2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming | Ongoing | - | - | - | |
| | Stresses: 1. Ecosystem stresses -> 1.1. Ecosystem con | | ystem conversion | | |
| | | 1. Ecosystem | stresses -> 1.2. Ecos | ystem degradation | |
| 2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming | Ongoing | - | - | - | |
| | Stresses: | 1. Ecosystem | stresses -> 1.1. Ecos | ystem conversion | |

| | | 1. Ecosystem stre | esses -> 1.2. Ecosyste | m degradation |
|---|-----------|---|--|---------------------|
| 2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming | Ongoing | - | - | - |
| | Stresses: | | esses -> 1.1. Ecosyste esses -> 1.2. Ecosyste | |
| 2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming | Ongoing | - | - | - |
| | Stresses: | 1. Ecosystem stresses -> 1.1. Ecosystem conversion | | |
| | | 1. Ecosystem stre | esses -> 1.2. Ecosyste | m degradation |
| 4. Transportation & service corridors -> 4.1. Roads & railroads | Ongoing | - | - | - |
| | Stresses: | 2. Species Stresses -> 2.1. Species mortality | | |
| 5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target) | Ongoing | - | - | - |
| | Stresses: | 2. Species Stresses -> 2.1. Species mortality | | |
| 5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.2. Unintentional effects (species is not the target) | Ongoing | - | - | - |
| | Stresses: | 2. Species Stresses -> 2.1. Species mortality | | |
| 5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.3. Persecution/control | Ongoing | - | - | - |
| Stresses: 2. | | 2. Species Stresses -> 2.1. Species mortality | | |
| 5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.5. Motivation Unknown/Unrecorded | Ongoing | - | - | - |
| | Stresses: | 1. Ecosystem stresses -> 1.2. Ecosystem degradation | | |
| 8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species (Felis catus) | Ongoing | Majority (50- 90%) | Slow, significant declines | Medium impact: 6 |
| | Stresses: | 2. Species Stress 2.3.1. Hybridisat | es -> 2.3. Indirect spe ion | ecies effects -> |

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

| Conservation Actions in Place |
|---|
| In-Place Land/Water Protection and Management |
| Occur in at least one PA: Yes |
| In-Place Education |
| Included in international legislation: Yes |
| Subject to any international management/trade controls: Yes |

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions Needed

2. Land/water management -> 2.1. Site/area management

3. Species management -> 3.2. Species recovery

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed

- 1. Research -> 1.1. Taxonomy
- 1. Research -> 1.2. Population size, distribution & trends
- 1. Research -> 1.3. Life history & ecology

1. Research -> 1.5. Threats

- 1. Research -> 1.6. Actions
- 3. Monitoring -> 3.1. Population trends

Additional Data Fields

| Distribution | |
|------------------------------------|--|
| Lower elevation limit (m): 0 | |
| Upper elevation limit (m): 2250 | |
| Population | |
| Population severely fragmented: No | |

The IUCN Red List Partnership



The IUCN Red List of Threatened Species[™] is produced and managed by the <u>IUCN Global Species</u> <u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>. The IUCN Red List Partners are: <u>BirdLife International</u>; <u>Botanic Gardens Conservation International</u>; <u>Conservation</u> <u>International</u>; <u>Microsoft</u>; <u>NatureServe</u>; <u>Royal Botanic Gardens</u>, <u>Kew</u>; <u>Sapienza University of Rome</u>; <u>Texas</u> <u>A&M University</u>; <u>Wildscreen</u>; and <u>Zoological Society of London</u>.