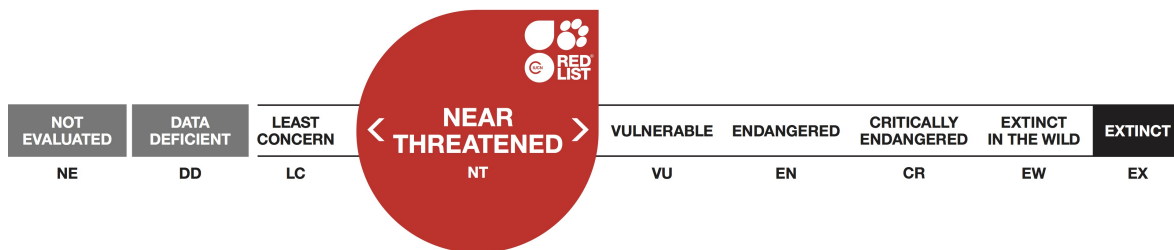


## *Hydricctis maculicollis*, Spotted-necked Otter

Assessment by: Reed-Smith, J., Jacques, H. & Somers, M.J.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Mustelidae

**Taxon Name:** *Hydrictis maculicollis* (Lichtenstein, 1835)

**Synonym(s):**

- *Lutra maculicollis* Lichtenstein, 1835

**Common Name(s):**

- English: Spotted-necked Otter, Speckle-throated Otter, Spot-necked Otter
- French: Loutre à cou tacheté
- Spanish: Nutria de Cuello Manchado

**Taxonomic Notes:**

This species was included in the genus *Lutra* following Koepfli and Wayne (1998) however, more recent work carried out by Koepfli *et al.* (2008) and Sato *et al.* (2012) places it in *Hydrictis* Pocock, 1921.

## Assessment Information

**Red List Category & Criteria:** Near Threatened [ver 3.1](#)

**Year Published:** 2015

**Date Assessed:** June 14, 2014

**Justification:**

Although this species has a large distribution they are restricted to areas of permanent fresh water, offering good shoreline cover and an abundant prey base. Thus while the distribution range is large, the spatial size of their occupied habitats is much smaller and unknown, particularly due to the widespread habitat destruction and pollution problems reported for much of the African continent. The impact of global climate change throughout Africa (Magadza 1994, Dixon *et al.* 2003, Hendrix and Glaser 2007) also has the potential of decreasing suitable habitat for otters and increasing human/otter conflict for increasingly scarce resources such as water, land, and fish. Both this decrease in suitable habitat and increase in human/otter conflict are currently occurring and will certainly increase over the next three generations.

This reassessment is based on a perceived (in regions where studies have been conducted) (Akpona *et al.* 2011, Reed-Smith in prep.) and assumed (in regions where no studies have been done) population decline over the last 16 years and beyond. In much of their range, populations of Spotted-necked Otters are faced with habitat loss or degradation, polluted waters, and/or degraded water ecosystems due to the introduction of exotic species such as Water Hyacinth (*Eichhornia crassipes*) and Nile Perch (*Lates niloticus*) and marginal agricultural practices. This habitat disturbance is exacerbated by poor sanitation infrastructure and growing industrial waste pollution. Additionally, regional human populations are poor and increasingly placing pressure on all resources including water, vegetation, the otter prey base, as well as reducing suitable resting and denning sites vital to survival of the species.

For all of the above reasons and the lack of effective conservations measures currently a continued decline in the overall Spotted-necked Otter population of at least 20% is projected for the next three generations (23 years; Pacifici *et al.* 2013). Therefore the species is listed as Near Threatened as it almost qualifies as threatened under criterion A3cde; this is a precautionary listing.

### **Previously Published Red List Assessments**

2008 – Least Concern (LC)

2004 – Least Concern (LC)

2000 – Vulnerable (VU)

1996 – Lower Risk/least concern (LR/lc)

## **Geographic Range**

### **Range Description:**

Spotted-necked Otters are found in lakes and larger rivers throughout much of Africa south of 10°N. They are common in Lake Victoria and across Zambia, but for some unexplained reason often are absent from what appear to be suitable habitats, such as the lakes and rivers, of East Africa and the Zambezi below Victoria Falls (Estes 1992). It is likely to be present throughout most of its historic range albeit, in reduced numbers due to habitat degradation, civil strife, polluted waterways, increasing human animosity towards this species, and use as a meat source (Reed-Smith 2010).

However, due to the paucity of current information their continued presence in Angola, Burkina Faso, Burundi, Chad, Côte d'Ivoire, Equatorial Guinea, Eritrea, Ethiopia, Guinea, Liberia, Mali, Nigeria, Sierra Leone, and Sudan is presumed. The species is believed to be extinct in Burundi, Ghana, Lesotho, and Togo (Reed-Smith *et al.* 2014).

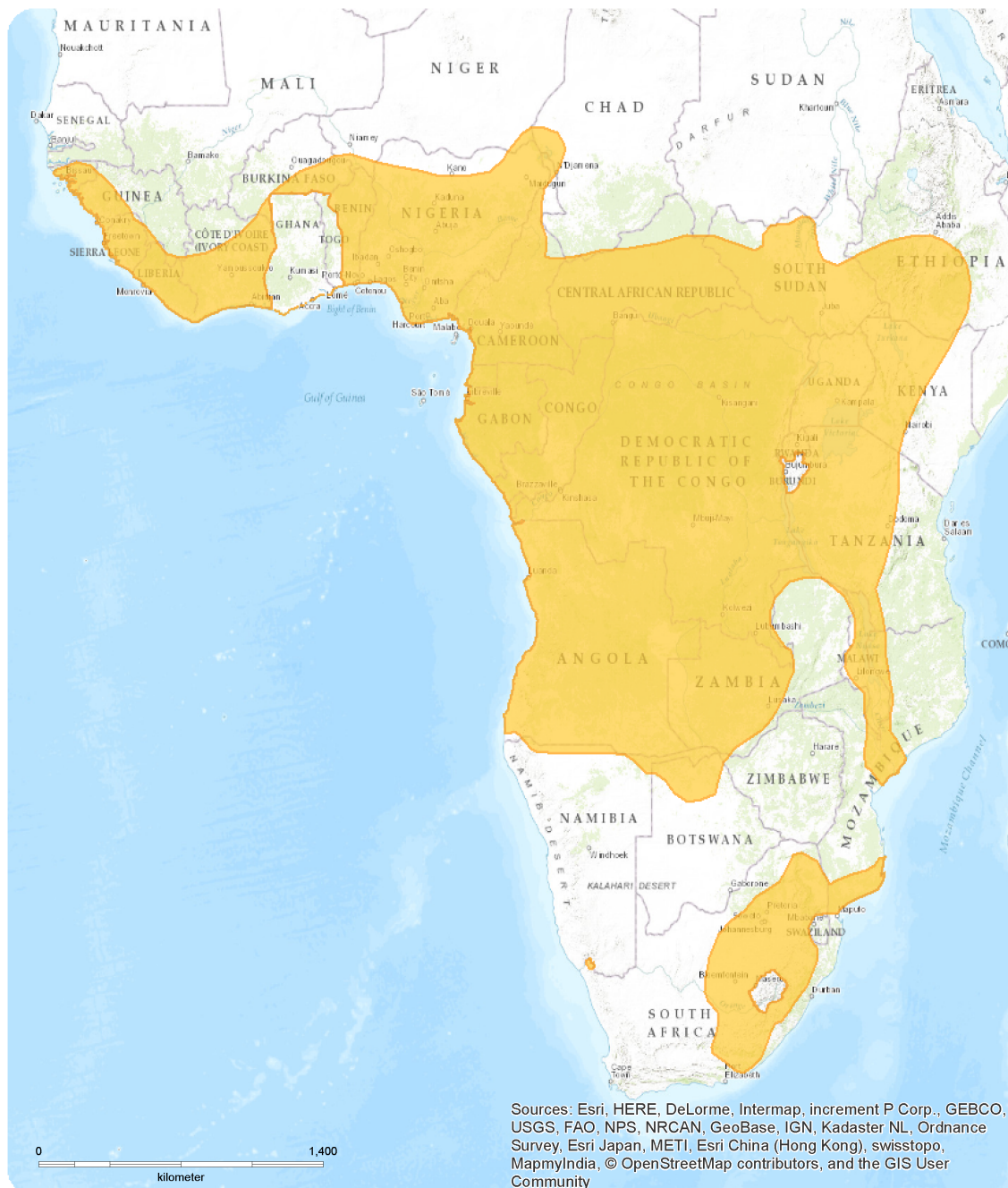
Current reports indicate the Spotted-necked Otter is present in reduced numbers in Benin, Botswana, Cameroon, Central African Republic, Congo, The Democratic Republic of the Congo, Gabon, Guinea-Bissau, Kenya, Malawi, Mozambique, Namibia, Niger, Rwanda, South Africa, United Republic of Tanzania, Uganda, Zambia, and Zimbabwe (Reed-Smith *et al.* 2014). The large lakes of Central and East Africa and possibly the larger river systems are important sites for the conservation of this species.

### **Country Occurrence:**

**Native:** Angola (Angola); Benin; Botswana; Burkina Faso; Cameroon; Central African Republic; Chad; Congo; Congo, The Democratic Republic of the; Côte d'Ivoire; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Guinea; Guinea-Bissau; Kenya; Liberia; Malawi; Mali; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sierra Leone; South Africa; Sudan; Tanzania, United Republic of; Uganda; Zambia; Zimbabwe

**Possibly extinct:** Burundi; Ghana; Lesotho; Togo

## Distribution Map

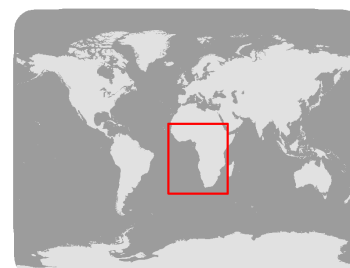


### *Hydrictis maculicollis*

#### Range

Extant (resident)

Compiled by:  
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Conservation of Nature)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



## Population

Like other otter species, its abundance and density appear to be dependent, in part, on the availability of fish; consequently, this species was historically common or fairly common in the fish-rich Central African lakes, but generally uncommon or rare in the rest of Africa where fish faunas tend to be poor (Rowe-Rowe 1990, 1995; d'Inzillo Carranza and Rowe-Rowe 2013). In an area that included a highland stream and man-made lakes in South Africa, Perrin *et al.* (2000) estimated one otter/1-2 km of stream, while in less suitable habitat Rowe-Rowe (1992) estimated one otter/6-11 km. In a more recent study (Kubheka *et al.* 2013) detected only 25% of the number of sightings located during two previous studies in an area of intense human disturbance but roughly the same number of sightings located in an undisturbed area during the latter 1993 study indicating a reduction in otter numbers in areas of increased human presence. In the Central and East African lakes, density was estimated at between one and two otters per kilometre of shoreline (Procter 1963, Kruuk and Goudswaard 1990, Lejeune and Frank 1990 cited in D'Inzillo-Carranza and Rowe-Rowe 2013). A more recent study (2006 – 2011) of Lake Victoria detected what could be a similar abundance on portions of the protected shoreline of Rubondo Island National Park but local sources reported a perceived decline in, or absence of otters along other portions of the lake's shorelines.

Their abundance also appears to be dependent on suitable habitat cover (Reed-Smith 2010) which includes dense vegetative cover and/or the presence of large, piled boulder shorelines. Early studies of this species inhabiting large East African lakes and South African riverine systems reported observations of group size ranging up to approximately 20 individuals (Rowe-Rowe and Somers 1998, Reed-Smith unpublished data). Recent studies in East Africa (Reed-Smith *et al.* 2010, Reed-Smith *et al.* in preparation, and unpublished data for Tanzania, Kenya, and Uganda) indicate population declines due to habitat loss, water course changes due to drought, increased human populations, and increased eradication of otters as perceived competitors as well as for consumption and traditional medicine. Based on informant interviews in East Africa (Reed-Smith *et al.* 2010 and unpublished data) as well as reports from other range countries this species is seldom observed or not seen as often as it was 10 years ago and groups of more than five are rarely seen. Over the last six years, areas of Lake Victoria where otters were routinely observed, informants now report rarely or never seeing them.

Unfortunately, beyond these personal accounts there are very little data available on presence or status of this species throughout most of their historic range for the last fifteen years and only marginally more for the last 30 years. An additional problem in assessing their status is that throughout most of their range there is often no distinction made by local people between *H. maculicollis* and *Aonyx capensis* or *A. congicus* with which they can be sympatric.

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

The Spotted-necked Otter inhabits freshwater habitats where water is un-silted, unpolluted, and rich in small to medium sized fishes (Reed-Smith 2010, d'Inzillo Carranza and Rowe-Rowe 2013). While comparatively common in the great lakes of Central and East Africa, they are also found in streams, rivers and impoundments up to altitudes of 2,500 m (Yalden *et al.* 1996). In riparian and lacustrine habitats adequate vegetation in the form of long grass, reeds, dense bushes, overhanging trees and large boulder piles is essential to provide cover during periods of inactivity and for denning. Unlike

African Clawless Otter, they do not occur in marine or estuarine waters.

**Systems:** Terrestrial, Freshwater

## **Use and Trade (see Appendix for additional information)**

Otters are killed for food, for medicinal purposes and for their skins.

## **Threats (see Appendix for additional information)**

The Spotted-necked Otter is decreasing throughout its range, mainly as a result of the alteration or degradation of freshwater habitats and riparian vegetation. This rapid habitat loss is exacerbated by a growing, poor population engaged in unsustainable agricultural activity (Rowe-Rowe 1990, 1992, 1995) and unsustainable fishing practices (LVFO 2008). These practices have led to bank and shoreline erosion, denuding of important vegetative cover used by the otters, increased human presence which is disruptive to otter denning, increased use of smaller mesh nets and poisoning to improve catches, and the change or depletion of the otters prey base (Kruuk and Goudswaard 1990). Pollution of waters with agricultural, livestock, and societal wastes also are threatening with evidence of the bioaccumulation of organochlorines and other biocontaminants recorded in Spotted-necked Otters (Mason and Rowe-Rowe 1992). The rate of otters becoming entangled in set and discarded fishing nets is impossible to determine. However, based on known entanglement of other species it has likely increased over the occasional drowning reported previously (Stuart 1985, Rowe-Rowe 1990).

Otters are also killed for food or skins, as a perceived threat to poultry, or as a competitor for fish (Rowe-Rowe 1990, Akpuna *et al.* 2011, Reed-Smith *et al.* 2010). Introduction of alien fish species that out-compete the smaller indigenous fish was identified as a main threat for the Lake Victoria population (Kruuk and Goudswaard 1990).

Habitat loss and increased conflict with people is impacting all populations. The increase in human numbers dependent on fish as a source of protein is particularly threatening in the large East African lakes which are historically important refugia for this species. It has been reported that the introduction of Nile Perch into Lake Victoria and their impact on the diversity of the fish biomass in the lake is forcing a dietary shift for the otters (Kruuk and Goudswaard 1990). This shift in prey base has been observed (Reed-Smith 2010) but its full impact is unknown at this time particularly for areas outside of the protected national park where recent studies have occurred. The introduction of invasive alien species such as water hyacinth (*Eichhornia crassipes*) is also degrading the water ecosystem.

The impact of global climate change throughout Africa (Magadza 1994, Dixon *et al.* 2003, Hendrix and Glaser 2007) also has the potential of decreasing suitable habitat for otters and increasing human/otter conflict for increasingly scarce resources such as water, land, and fish. UNECA projected in a 1999 study that portions of the Spotted-necked Otter's current range would be experiencing fresh water stress and scarcity by 2025 with much of the rest of its range considered vulnerable to these hydrologic issues.

## **Conservation Actions (see Appendix for additional information)**

Currently there are only a few regionally based conservation actions in place for this species (e.g African Otter Outreach Project, listed as Vulnerable in South Africa) and it is technically protected in all national parks.

They are present in several protected areas across their range but are little known and seldom seen by staff or visitors. Efforts should be made to educate range country park staff about all otter species and the role they play in a healthy ecosystem to increase awareness and protection for this species. This lack of knowledge by range country professionals is a significant conservation opportunity that can be taken advantage of by initiating an awareness campaign for all range country wildlife professionals. This campaign should be expanded to target human populations sharing their ecosystems with otters, particularly where traditional tales about otter behaviour are deleterious to the species future survival (e.g. otters rape women or raid young maize crops).

Another significant conservation action is taking steps to network with other field biologists working in ecosystems where otters are found. The creation of an easy system to report otter sightings would significantly contribute to our knowledge of their current distribution and aid researchers in future assessments of status and population trends in Africa where they inhabit areas that are hard to reach, or dangerous to survey due to the presence of crocodiles, hippopotamus, etc. Networking with other researchers to create synergy between conservation efforts also would benefit preservation of important otter habitats and ecosystems.

There is need for detailed studies on the distribution and current status of this species as well as conducting public relations campaigns to increase awareness of the presence of otters in Africa.

It is listed on CITES Appendix II.

## Credits

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# Appendix

## Habitats

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

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.7. Forest - Subtropical/Tropical Mangrove Vegetation Above High Tide Level	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.2. Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	-	Marginal	-
5. Wetlands (inland) -> 5.5. Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.6. Wetlands (inland) - Seasonal/Intermittent Freshwater Lakes (over 8ha)	-	Marginal	-
5. Wetlands (inland) -> 5.7. Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.13. Wetlands (inland) - Permanent Inland Deltas	Resident	Suitable	Yes
9. Marine Neritic -> 9.10. Marine Neritic - Estuaries	-	Marginal	-
12. Marine Intertidal -> 12.7. Marine Intertidal - Mangrove Submerged Roots	-	Suitable	-
13. Marine Coastal/Supratidal -> 13.5. Marine Coastal/Supratidal - Coastal Freshwater Lakes	Resident	Suitable	Yes
15. Artificial/Aquatic & Marine -> 15.1. Artificial/Aquatic - Water Storage Areas (over 8ha)	-	Marginal	-
15. Artificial/Aquatic & Marine -> 15.2. Artificial/Aquatic - Ponds (below 8ha)	-	Marginal	-
15. Artificial/Aquatic & Marine -> 15.3. Artificial/Aquatic - Aquaculture Ponds	-	Marginal	-
15. Artificial/Aquatic & Marine -> 15.9. Artificial/Aquatic - Canals and Drainage Channels, Ditches	-	Marginal	-

## Use and Trade

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

End Use	Local	National	International
Food - human	Yes	No	No
Medicine - human & veterinary	Yes	No	No

End Use	Local	National	International
Wearing apparel, accessories	Yes	No	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 conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem 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 -> 5.1.3. Persecution/control	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.2. Intentional use: (large scale)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.3. Unintentional effects: (subsistence/small scale)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.4. Unintentional effects: (large scale)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
6. Human intrusions & disturbance -> 6.3. Work & other activities	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.4. Abstraction of surface water (unknown use)	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion		

		1. Ecosystem stresses -> 1.2. Ecosystem degradation
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 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 (Eichhornia crassipes)	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 (Lates niloticus)	Ongoing	- - -
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects -> 2.3.8. Other
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.1. Sewage	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.2. Soil erosion, sedimentation	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation
11. Climate change & severe weather -> 11.2. Droughts	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation
11. Climate change & severe weather -> 11.3. Temperature extremes	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation
11. Climate change & severe weather -> 11.4. Storms & flooding	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation

## Conservation Actions in Place

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

<b>Conservation Actions in Place</b>
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes
In-Place Education

<b>Conservation Actions in Place</b>
Included in international legislation: Yes
Subject to any international management/trade controls: Yes

## Conservation Actions Needed

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

<b>Conservation Actions Needed</b>
2. Land/water management -> 2.1. Site/area management

## Research Needed

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

<b>Research Needed</b>
3. Monitoring -> 3.1. Population trends

## Additional Data Fields

<b>Distribution</b>
Lower elevation limit (m): 0
Upper elevation limit (m): 2500
<b>Population</b>
Continuing decline of mature individuals: Yes
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 7.5
Movement patterns: Not a Migrant

## The IUCN Red List Partnership



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