

# Migratory Jaguars (*Panthera onca*)

**Proposed action:** Inclusion in CMS Appendix I and II

**Proponents:** Costa Rica, Argentina, Bolivia, Paraguay, Peru, Uruguay



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## Overview

As the largest cat in the Americas, the jaguar depends on transboundary habitat connectivity to migrate within its vast distribution stretching from the U.S. to Argentina. One third of jaguar subpopulations contain individuals with home ranges that cross political boundaries, and many of the major Jaguar Conservation Units extend across international borders. However, rapid, increasing forest loss and human development are eroding jaguar corridors, fragmenting their habitat and impeding access to prey, mates and other essential resources. Conservation of this wide-ranging species requires the protection of large units of intact contiguous forest rich in prey and free of conflict with people. Large-scale multilateral, collaborative initiatives are crucial for protecting the jaguar from further habitat loss, retaliatory killing and illegal wildlife trade, and the listing of the species on the CMS Appendices can provide the framework within which existing agreements and initiatives, such as the Jaguar 2030 New York Statement and the Jaguar 2030 Roadmap, can be successfully implemented. Due to the severity of current threats, 33 of the 34 jaguar subpopulations meet the CMS criteria for listing in Appendix I and II. Listing the species can accelerate cooperation among parties to facilitate the rapid assessment and protection urgently required to conserve the jaguar.



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## Biology and Distribution

The jaguar is the largest cat in the Americas and the only living representative of the genus *Panthera* there. As of 2016, an estimated 40,000 to 80,000 jaguars remained. The species currently ranges through 21 countries from the southwestern U.S. through Central America to the northern limits of Argentina, although its occupancy has declined to 51% of its historical range. Many of the major Jaguar Conservation Units extend across international borders. Given the large home ranges and far-ranging dispersal of the species, a significant proportion of jaguars cross international borders during their lifetime. Jaguars in 10 of the 34 subpopulations likely have home ranges that extend across 26 transboundary boundaries from the U.S. to Argentina.

Two types of migration occur over a jaguar's lifespan: dispersal, as juveniles search for and establish a territory, and home range movement, as adults repeatedly travel around their vast ranges. Jaguar home range size can vary from 33 km<sup>2</sup> to 1,359 km<sup>2</sup> across the species' distribution, depending on prey, habitat, access to mates and other factors. As the dominant predator, jaguars can exert a top-down influence on the food web, regulating ecosystems by affecting multiple trophic levels, from mesopredators to plants. Jaguars inhabit a variety of environments, including forests, mangroves, grasslands, scrubs and chaparrals, and are found in lowlands, mountains and coastal areas. Habitat use differs notably by sex. Females avoid areas heavily populated by humans, whereas males do not, which leads to a less extensive and more fragmented habitat distribution for females than males.

## Threats to Jaguar Migration

Thirty-three of the 34 jaguar subpopulations meet the CMS listing criteria due to their small size, isolation, poor protection and high human population density in the surrounding area. The IUCN Red List assessment classifies jaguars as Near Threatened due to a 20% to 25% decline in the last three generations. Laws to protect jaguars exist in all countries of the species' range yet threats persist, especially with regards to habitat destruction, loss of migratory corridors, hunting and retaliation for loss of livestock. Cattle ranching, which drives deforestation and retaliatory killing, and wildlife trafficking, which facilitates poaching, further place significant pressure on the species.

Habitat loss has led to the decline in jaguar populations over much of their range and poses additional problems for jaguar transboundary movement. Only 38% of jaguar range is protected, including government and private protected areas, regions designated by regional and international conventions and territories conserved by indigenous people and communities. The rapid,

increasing rate of forest fragmentation—currently estimated at 37,780 km<sup>2</sup> per year—means that 45,979 km<sup>2</sup> of jaguar corridor, an area nearly the size of Costa Rica, is being lost annually.

As connectivity erodes between populations, jaguar subpopulations become more vulnerable to local extinctions. The construction of roads, railways, fences, hydroelectric dams and other developments degrade jaguar habitat and create barriers that deter or prevent movement and dispersal. Without conservation of transboundary areas to maintain jaguar movement across country borders, jaguar numbers will continue to decline.

## Conservation Opportunities

Jaguar conservation is intrinsically transboundary, and connectivity between jaguar populations across political borders is critical to the species long-term survival. Ideally this will require the conservation of large units of relatively intact contiguous habitat that is rich in prey. At the minimum, jaguars need substantial patches of habitat with prey linked by areas of safe passage.

To conserve jaguars, range countries should safeguard biological and genetic corridors that ensure connectivity between subpopulations across the Americas. Habitat connectivity between jaguar populations in Central America and South America is especially at risk given high rates of forest loss, and Colombia is a critical habitat link. Maintaining connectivity between populations in Brazil and northern Argentina is also a high priority to protect jaguars in the Atlantic forest.

Large-scale transboundary initiatives are now key for preserving priority areas for jaguar movement throughout the species' range. For example, the Jaguar 2030 Roadmap unites 14 range countries to secure 30 priority jaguar landscapes by 2030 by stimulating sustainable development, reducing human-jaguar conflict and increasing habitat connectivity. The Mesoamerican Biological Corridor endorsed by eight countries provides a framework for uniting all protected areas in Central America. The Jaguar Panthera Corridor Initiative extends these efforts to South America by creating jaguar corridors with profitable, jaguar-friendly ranching that supports intact landscapes for jaguar movement. For these and future initiatives, widespread, committed collaboration among governments, local communities, nongovernmental and intergovernmental organizations, and the private sector are crucial for conserving migratory jaguars.

The listing of jaguars on the CMS Appendices could be useful in facilitating these efforts through increasing collaboration and outreach and access to funding and other resources for all CMS Parties and Partners.

## CALL TO ACTION

The listing of jaguars on CMS Appendix I and II could:

- facilitate regional cooperation toward conservation of shared populations and key habitats;
- prioritize corridor management to avoid extinction of more isolated populations;
- attract attention to endangered subpopulations with transboundary corridors;
- expand local and regional efforts to assess and research transboundary jaguar populations; and
- provide a mechanism for the effective implementation of existing conservation plans and agreements, including the Jaguar 2030 New York Statement and the Jaguar 2030 Roadmap.

**We urge CMS Parties to support inclusion of the jaguar on CMS Appendix I and II at CoP13.**