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Supplementary material

Jaguar (*Panthera onca*) food resource use and its interaction with humans: scoping review

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Table S1. Synthesis of results from sources of evidence focused on jaguar food resource use

Theme/ subtheme	Reference/ country	Population and environment	Objectives	Methodological description	Main findings
Feeding habits / Prey consumption	Aranda et al.[32] / Mexico	Jaguars and puma / Tropical rainforest	Compare the base prey spectrum in both species	Droppings of both species were collected on trails with evidence of tracks. Prey remains such as skins, bones, hooves, claws, and teeth were used for identification. The diet overlap index was calculated	Ten and seven vertebrate species were identified as prey for jaguar and puma, respectively, with peccaries and deer being the preferred prey. Coexistence is a function of hunting strategies and prey spectra
	Avila-Nájera et al.[33] / Mexico	Jaguars and pumas / Eden Ecological Reserve	Determining diet and prey preferences of jaguars and pumas	Excreta and phototraps were collected. The species and sex of the felids were determined by molecular techniques and prey abundance was estimated by camera trapping.	Of the 49 feces found, 23 were from jaguars. Remains of 15 species and five prey were detected. The most frequent prey were large ungulates, followed by small mammals.
	Cassaigne et al.[34] / Mexico	Jaguars and pumas / Sonora	Determine diet and locate kill sites. Analyze droppings and estimate livestock predation rates.	Two jaguars were captured to place GPS collars to identify kill sites. The relative abundance of the felines was estimated, and feces were collected to identify the prey consumed by DNA.	Twenty-three kill sites used by jaguars and one shared site were identified. Nine prey species were identified in the feces, weighing less than 15 kg. Jaguars killed 3.7 calves per year and 2.8 white-tailed deer per year.
	Cavalcanti et al.[35] / Brazil	Jaguars / Pantanal region	Describe the predatory behavior of jaguars on a cattle ranch.	Between 2001-2004, jaguars were fitted with GPS collars and their locations were mapped. Prey abundance and jaguar density were estimated by phototrapping. Sixteen camera stations were used to sample 3 contiguous 65 km2 blocks.	Six males and four females were monitored. Sixty-eight percent of prey consumed were native, the rest were cattle. Prey selection varied according to availability and vulnerability. Females consumed more caiman and males more peccaries.
	De Azevedo et al.[36] / Brazil	Jaguars and pumas / Subtropic	Determine the size and range of prey classes used and evaluate the effect of livestock on their coexistence.	Predation identification was based on claw and fang marks. Excreta were conveniently collected on roads. Cat attacks on livestock were documented on 85 ranches. The biomass consumed and the weight of prey were estimated.	Jaguars consumed large (≥15 kg) and medium (1-15 kg) wild prey and pumas only medium prey. Cattle were the fifth most important prey, without substantial predation. Coexistence is associated with prey sharing.
	De Azevedo et al.[37] / Brazil	Jaguars and pumas / Southern area of the Pantanal region	To examine the spatial organization and use of food resources in a jaguar population.	Jaguars and pumas were captured and fitted with radio collars. They were monitored and located by ground and aerial means. Wildlife prey density was estimated, and diet was determined using scat.	In jaguars, large mammals constituted most of the available prey. Jaguars depend on large mammals. Capybaras and caimans were the most common prey.
	Hernández et al.[38] / Mexico, Guatemala, and Belize	Jaguars / Tropical forest and Mayan jungle	Identify the ecological factors that favor the coexistence of jaguar and puma.	Prey remains were identified in the droppings and, using geographic information systems, the proportions of habitat types were estimated, and prey abundance data were collected.	The felines consumed at least 17 species of prey, mainly mammals. There was a selective and different diet; the jaguar preferred the bush car, the pizonte and armadillo. They preferred nocturnal hunting and used the high forest.

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	Farrel et al.[39] / Venezuela	Jaguars and other carnivores / Flooded savannas of Venezuela	Identify predator species from excreta and evaluate the usefulness of DNA for species identification.	Samples were collected during a radiotelemetry survey, along roads and trails on a cattle ranch. Dam remains were visually identified by examining the remains of the dams.	Three jaguar droppings were found feeding on medium and large mammals such as white-tailed deer, armadillo and collared peccary. Prey content analysis suggests minimal prey partitioning between pumas and jaguars.
	Foster et al.[40] / Belize	Jaguars and pumas	Estimating the size and accuracy of scat samples for recording the most common prey items	Literature review and genetic analysis	In jaguar, 45 droppings are required to identify the 5 most common prey species, including sheep. The most common species for both species are armadillo, white-lipped peccary and paca.
	Foster et al.[41] / Belize	Jaguars and pumas	Estimate prey catch rates of both humans and predators, and assess the sustainability of shared prey species hunting.	Literature review and 806 interviews. Consumption rates were established as a function of economic status and statistics were applied. Annual harvest of each wild mammal was estimated from annual meat requirements of adult jaguars and published estimates.	Six species comprised 7% of animal protein consumed by people. The species are also consumed by felines. The prey harvest was estimated at 4 thousand tons, 78% of which is hunted by people. Models indicate an unsustainable harvest
	Foster et al.[42] / Belize	Jaguars and pumas / Protected rainforest and neighboring areas	Comparing the feeding habits of jaguars and pumas in Belize and Central America	Carnivore droppings were collected and used to identify predator species by DNA. Prey within the feces were identified to species level by morphology and hair. Overlap in prey use was calculated.	In jaguars, a low diversity diet was found with a preference for prey weighing 5-10 kg. Armadillos and coatis were frequently consumed, followed by peccaries. Outside the forest, the diet included 12 species and domestic mammals.
	Garla et al.[43] / Brazil	Jaguars / Eastern reserve, tropical rainforest	Describe the feeding habits of the jaguar.	Excreta were collected along 117 km of trails, and the relative abundance of prey and their biomass were estimated.	Twenty-four prey species were identified, the most abundant being mammals. Armadillos and peccaries were the most consumed. The jaguar's feeding habits are similar throughout its geographic distribution. There were no attacks on livestock
	Gomez-Ortiz et al.[44] / Mexico	Jaguars, pumas, and mesopredators / Temperate ecological park	To investigate the mechanisms that explain the coexistence between species in a temperate zone of central Mexico.	The felids were identified by the bile acids in their excreta. Prey were identified by their remains. The frequency of prey occurrence, niche breadth and overlap were estimated.	Forty-five types of prey were found (51% mammals) and two guilds were defined: large predators with P. onca and P. concolor and the rest meso-predators. Body size allows for differentiated use of resources and reduces guild competition.

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	Gonzalez et al.[45] / Mexico, Centre and South America	Jaguars / Various environments	To analyze the feeding habits of the jaguar and evaluate the importance of prey in the diet.	Literature was reviewed and droppings were collected to identify prey.	Prey toward the equator tends to be smaller. The jaguar does not depend on large prey, it also consumes medium-sized prey (4 kg).
	Gonzalez-Maya et al.[46] / Costa Rica	Jaguars / Costa Rica	Identifying jaguar prey and their consumption of ocelots in Talamanca, Costa Rica	15 fecal samples were collected during the rainy season and consumed prey were identified by microscopic analysis.	Four prey were identified and the collared peccary was the main prey, followed by ocelots. During the rains, ocelots represent an important prey in the mountains of Central America.
	Gutierrez-Gonzalez et al.[47] / Mexico	Jaguars and pumas / Northern arid zones	Assessing the dominance of jaguars over pumas in arid areas of northern Mexico on private and ranch lands	Photo-trapping from 2009-2012, phototrapping stations separated by 1 km. Occupational models were used to analyze overlap and activity patterns.	Both predators coexist, are nocturnal and their activity patterns overlap by 60%. The jaguar, overlapped more with deer and calves and the puma with calves more than with other prey, suggesting a preference
	Hayward et al.[48] / The Americas	Jaguars / Various habitats	Determine preferred prey and investigate the impact of Pleistocene extinctions on predator ecology.	Literature review and meta-analysis. We used Jacobs' index for jaguar selectivity for wild prey. Prey preferences were tested as a function of abundance, rainfall and size of prey available at a site.	Jaguars prefer larger prey (100 kg), except tapirs, which are avoided. The predator to prey body mass ratio was lower than that of other solitary felids. The loss of potential prey affects them; they survive by preying on small species.
	Hernandez-SaintMartin et al.[49] / Mexico	Jaguars and pumas / Sierra del Abra-Tanchipa Biosphere Reserve	Analyze the feeding habits of jaguar and puma in a protected area surrounded by a fragmented landscape in Mexico.	The relative biomass of each prey species consumed was estimated by analysis of 43 and 22 jaguar and puma scat samples collected during 2010-2012. Prey were identified by molecular analysis	The collared peccary contributed 35.2% of the biomass of the jaguar's diet. The diet of both cats included mostly wild species, suggesting the presence of a good prey base that allows jaguars and pumas to coexist.
	Miranda et al.[50] / Brazil	Jaguars / Caatinga, Brasil	Assessing prey composition and size, trophic niche in a poached protected area	Prey were molecularly identified in feline feces. A literature review was conducted to compare prey size and trophic niche breadth. The contribution of prey biomass was estimated.	Low values were found for prey size (5.2 kg). Yellow armadillo was the most consumed prey (64%), jaguars change their diet when large prey are scarce.
	Novack et al.[51] / Guatemala	Jaguars and pumas / Mayan Biosphere Reserve	Evaluate feeding habits and prey selection in hunted and nonhunted segments.	Feeding habits were determined from scat analysis within hunted and nonhunted areas, diets were compared to assess the effects of subsistence hunting and between species to assess resource partitioning among these carnivores.	The diet of jaguars was dominated by medium-sized prey, particularly armadillos and coatis, in both hunted and nonhunted areas. Dietary overlap of felids in both areas was low.

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	Núñez et al.[52] / Mexico	Jaguars and pumas / Lower jungles and ecological reserve	Documenting feline diet	Analysis of excrement and prey carcasses. Percentage of occurrence and biomass of each prey species consumed was calculated. Biomass was calculated for jaguars and pumas, as well as diet overlap.	Both felids fed on mammals, Odocoileus virginianus which dominated the biomass of their diet. There was a high degree of overlap between diets, but pumas had a broader feeding niche with 16 species and the jaguar with eight.
	Perilli et al.[53] / Brazil	Jaguares / South Pantanal	Evaluating the feeding ecology of the jaguar	Scat samples were collected during field work when jaguars were wearing GPS collars. Animal remains were identified in the scat. The frequency of food occurrence was compared with prey communities.	A total of 153 prey were identified in 125 scat samples. The main prey were cattle, caimans and peccaries. There was a peak in cattle predation, followed by a decrease in cattle predation and an increase in peccary predation.
	Polisar et al.[54] / Venezuela	Jaguars and pumas / Hato Piñero Wildlife Reserve	Examine feline ecology and behavior in relation to prey abundance and distribution.	Four jaguars were monitored by radio for 53 months. Feces were analyzed for prey remains. Prey biomass was derived from abundance estimates and population structure data.	The jaguar preferred large-bodied prey. Jaguars fed selectively on capybaras and collared peccaries. White-tailed deer and caiman were preyed upon less frequently and white-lipped peccaries based on availability.
	Rueda et al.[55] / Mexico	Jaguars and pumas / Semihumid tropical rainforest in the north	Determine prey and amount of biomass consumed by predators.	In transects, feces were collected and prey remains were identified. Mitochondrial DNA analysis was performed and the amount of biomass consumed was estimated, and diet overlap was estimated.	Fourteen species were identified, seven of which are used by both species. The overlap was 93% suggesting an important competition. Only the puma consumed domestic animals. The jaguar consumed medium-sized prey (1-15 kg) and the common peccary consumed medium-sized prey (1-15 kg).
	Souza et al.[56] / Brazil	Jaguars and pumas	Identify predator and prey hairs in scat samples from the two felids.	Excreta were analyzed micro and macroscopically, prey and predators were identified with remains of hair, hooves and nails, associating them with the sites and evidence in the field (footprints, remains of prey).	Fifty-seven dams were identified for the Pantanal and 61 in Mata Atlântica. Cattle were also identified The technique should be improved to differentiate the characteristics of species of the same family.
	Taber et al.[57] / Brazil	Jaguars and pumas / Chaco dry forest	Describe and compare feeding habits of jaguar and puma in coexistence areas.	Excreta were collected in preserved and anthropized environments. Species were identified by bile acids and prey remains. Niche breadth, diet overlap and biomass were calculated.	Overlap was 65%, sharing seven prey species. The jaguar consumed 26 species, 56% weighing >15 kg, the puma consumed 16 species of medium size mainly, with no evidence of competition.

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Feeding habits / Predation of aquatic species	Arroyo-Arce et al.[58] / Costa rica	Jaguars and sea turtles / Tortuguero national park	Assess the impact of jaguar predation on three species of sea turtles.	Data on the presence or absence of jaguars were recorded by counting jaguar tracks at each sampling unit. Sea turtles predated by jaguars were also recorded by counting sea turtle carcasses at each sampling site.	Jaguars consumed an average of 120 green turtles and 2 leatherback turtles annually on Tortuguero beach. It was concluded that jaguars do not represent a threat to the green turtle population nesting on Tortuguero beach.
	Arroyo-Arce et al.[59] / Costa Rica	Jaguars / Tropical rainforest	Expand knowledge of jaguar diet in Tortuguero National Park.	Excreta and carcasses were collected and analyzed. Images obtained by phototrapping were used. The frequency and percentage of occurrence of prey in the excreta contents were estimated.	20 species were identified in their diet; the turtle (Chelonia mydas) was the most important in the carcass data, the pig (Tayassu pecari) was the main prey in the excreta.
	Carrillo et al.[60] / Costa Rica	Jaguars / Corcovado national park	Identify the role of sea turtle and peccary availability on feeding behavior.	Jaguar feces and turtle carcasses were collected. The number of carcasses found was compared between different lunar phases and weather. A collared jaguar was followed.	The jaguar showed a bimodal activity pattern according to the lunar phase. Seventy-two carcasses of turtles recently killed by jaguars were identified, most of which were located during the phases mentioned above.
	Da Silveira et al.[61] / Brazil	Jaguars and two species of caiman / Mamiraua reserve	Describing jaguar predation on caimans and their eggs in the western Brazilian Amazon.	Caiman nests were analyzed for predation. To examine the importance of reptile prey in the jaguar's diet, 19 study sites in 11 biomes in eight countries were reviewed.	Nine nests were predated by jaguar, evidence of caiman killing was presented. Jaguars devoured caimans only in seasonally flooded habitats. At eight sites, chelonians were observed in the diet.
	Guilder et al.[62] / Costa Rica	Jaguars / Tortuguero National Park	Evaluate carcass utilization rates by jaguars and analyze the effect of nesting season.	Jaguar predation on sea turtles was assessed on beaches. Camera traps were installed on freshly depredated turtles to capture jaguar activity during peak and nonpeak green turtle nesting seasons. The time spent on each carcass was calculated.	The analysis included 39 kills made by 13 jaguars. Collecting or sharing behavior was more frequent during the off-season. Jaguars spent more time with carcasses on the first night. Females spent more time with carcasses.
	Simá-Pantí et al.[63] / Mexico	Jaguars / Southeast Mexico	Report a case of C. moreletti caught in a reserve	Jaguar activity was recorded by phototrapping.	First record of jaguar consuming C. moreletti obtained by phototrapping in the wetlands of southeastern Mexico.
	Torralvo et al.[64] / Brazil	Jaguars and other predators of black caiman nests	Investigating the relationship between predator attacks on nests, incubation periods and subsequent predation	Nests were searched in 288 water bodies. Predator identification was based on traces from 595 nests and camera trap records from 63 nests. Predators were identified by nest holes, missing eggs, shells and tracks.	Attacks on black caiman nests by jaguars were recorded only in one nest in the eighth week of incubation in 2013 and in two nests attacked in the third week of 2014.

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Variability and availability of prey	Astete et al.[65] / Brazil	Jaguars and pumas / Semiarid Caatinga biome	Calculating habitat suitability for jaguars, pumas and four prey species	Distribution maps were created based on camera trap records and six variables were used to model and estimate habitat suitability	There was an overlap in the availability and use of habitat for jaguar, puma and deer. The niche for the jaguar is more limited; water management allows the species to remain in the arid environment.
	De Souza et al.[66] / Brazil	Jaguars and other wildlife / Transition area	Examine spatial and temporal variation in the presence, diversity and composition of prey and predators.	Camera traps were used. Ranch livestock loss data were used to make qualitative comparisons with wildlife monitoring data.	Predation is <1% of total herd loss. Predation is more frequent near intact forest and distant from the center of the ranch. Mammal diversity is higher near intact forest.
	de Thoisy et al.[67] / Guayana Francesa	Jaguars and their prey	Explore how prey and predator species, as well as habitat structure are interrelated	Camera traps were placed in terra firme forests. Surveys were implemented during the dry season. Abundance of some prey was analyzed and suitable habitats were modeled.	Many habitats in the northern part of the country were identified as areas with favorable conditions. Prey were more abundant where higher densities of jaguars were recorded.
	Petracca et al.[68] / Nicaragua	Jaguars and prey species / Corridor linking two reserves	Evaluate the presence of jaguars and six prey species in a critical corridor.	Interviews were conducted by sampling units in a known area where species presence was queried. Acceptable detections included direct sightings of tracks or of a live or dead animal.	Agricultural encroachment was the main factor limiting the presence of the jaguar and three large prey species: white-lipped peccary, collared peccary and red brocket deer.
	Polisar et al.[69] / Guyana, Center and South America	Jaguars / Forest áreas	Document the presence of jaguars and possible prey in areas from which certified timber is harvested.	Capture frequencies were considered valid only within country comparisons. Photographs were used to identify individual jaguars and generate independent capture frequencies.	Jaguars and potential prey were documented in all four countries with subnational differences in both jaguar frequency and prey distribution.
	Arroyo-Arce et al.[70] / Costa Rica	Jaguars / Tropical rainforest	Identify the habitat characteristics that influence jaguar occurrence in Tortuguero National Park.	Twenty-five phototrapping stations were established over 189 km2. Forty-two surveys were conducted on the presence of prey, attacks on livestock, and threats to the jaguar and its prey. Occupation modeling was carried out to characterize the habitat and distribution of the jaguar in the study area.	The jaguar's occupation correlates with turtle nesting, with the decrease in prey due to hunting and human activity. Respondents consider that hunting of prey is a risk to the jaguar, 75% have a positive attitude and 40% have suffered losses, with four deaths due to retaliation.
	Carrera-Trevino et al.[71] / Mexico	Jaguars and pumas / El Cielo biosphere reserve	Determine cat structure and density and prey abundance. Analyze activity and overlap patterns.	Population size was estimated and phototrapping was used. We estimated jaguar density and the relative abundance index of prey. 136 semistructured questionnaires were administered to ranchers who suffered attacks on their livestock.	Eight jaguars were identified with a density of 5.9/100 km2. The most abundant prey were Cuniculus paca, Mazama temama, Odocoileus virginianus and Didelphis virginiana. There is overlapping at night and there were attacks during the night.

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	De Matos et al.[72] / Brazil	Jaguars / Dry tropical forests and protected area	Identify prey poaching sites and associated variables	Photo-trapping for 200 days with 60 fixed cameras, the single-season occupancy model was used to determine the influence of covariates on the probability of hunter occupancy and detection.	A total of 1,345 prey and 77 hunters were recorded. Species frequency influenced the likelihood of poaching; distance to human settlements, roads and water wells did not influence
	Herrera et al.[73] / Costa Rica	Jaguars, ocelots, and pumas / Rainforest and dry forests	Evaluate the temporal separation between species and whether their activity patterns are related to those of their potential prey.	Photo-trapping was used to estimate the activity and overlapping patterns between felines and their prey.	The greatest temporal segregation was between the closest competitors (jaguar and puma, puma and ocelot). Jaguar and puma had a strong overlap with medium and large prey. Activity could explain coexistence and habitat use.
	Peetz et al.[74] / Venezuela	Jaguars / Island savanna	Report predation of howler monkeys by jaguars	Direct observation and monitoring of individuals. Collection of monkey remains	Evidence was found (monkey remains, bones, hair) suggesting that a young jaguar attacked 4 monkeys. Jaguars and cheetahs were observed roaming around, the latter possibly attacking another specimen.
	Santos et al.[75] / Center and South America	Jaguars and felines / Conserved and fragmented forests	Analyze niches between cat species, evaluate coexistence in sites with different levels of integrity and ecosystems.	Standardized phototrapping with one station per 2 km2, 30-60 days of placement. Habitat-associated variables such as prey availability were recorded and habitat occupancy and use models were used and niche overlap was estimated.	Prey availability is more important for space use than landscape variables or species interactions. Competition was more important in explaining spatial and temporal segregation between jaguars and pumas.
	Weckel et al.[76] / Belize	Jaguars / Rainy sanctuary	Evaluate opportunistic prey selection and the impact of anthropized sites on prey and jaguar distribution.	Excreta were identified molecularly, with phototrapping and jaguar hairs. Prey was identified with hairs and hooves. The relative abundance index was estimated from capture rates. Horn's similarity index for prey availability/use, for space and time overlap between jaguar/prey, was used to estimate the abundance index.	Wide overlap between prey used and available. Jaguars tend to select large prey such as peccaries. The jaguar/peccary overlap was moderate and the high consumption of armadillos and paca is considered opportunistic. The tapir does not represent an important prey, it represents an effort
Livestock predation / Attack characteristics	Amit et al.[77] / Costa Rica	Jaguares and pumas / Costa Rica	Analyzing the human-feline conflict in Costa Rican ranches	We interviewed ranchers where there were reports of livestock depredation. The characteristics of the ranch, management practices, details of predation, the value of economic losses and the perception of damage by the ranchers were analyzed.	The jaguar was recorded on 84% of the properties and 38% of these properties reported predation. Predation was reported as the only source of mortality in 14%. Felines hunted horses and cattle <1 year old.

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	Garrote et al.[78] / Colombia	Jaguares / Llanos orientales of Colombia	Identify the species of domestic livestock that jaguars attack and the sites of predation	Interviews were conducted with owners or workers of cattle ranches that had recorded jaguar attacks on livestock. Habitats and attacks were classified as follows	The jaguar selected swine over other types of livestock and the forests over the savannah for its attacks. Sixty-five percent of the individuals killed were <1 year old, in 42% of the farms the jaguar was killed with annual losses of 1.4% cattle.
	Khorozyan et al.[79] / Global	Jaguars and other big cats	Study the link between livestock predation, wild prey biomass and estimate prey thresholds that increase predation.	Information was retrieved by using a combination of keywords, such as "cattle*panthera" and "prey density*panthera". Relationships between significant predictors, response variables and confounders were tested using logistic regression models.	A total of 38 publications met the jaguar search criteria. The probability of predation by livestock depended on prey biomass. The jaguar attacked mainly cattle and all big cats, except tigers, preyed mainly on sheep and goats.
	Palmeira et al.[80] / Brazil	Jaguars and pumas / Central-west Brazil	Determine the spatial and temporal distribution of livestock predation and the proportion and age of dead livestock.	Data on livestock depredation was recorded by ranchers and all-cause mortality was recorded. Predation sites were located to identify areas with the highest incidence of attacks and their distance from forest patches.	The total biomass of cattle damaged by jaguars was 720 kg. Jaguars tended to kill calves aged 3 to 9 months. The occurrence of predation was not random and was limited to some pastures near the forest reserves.
	Peña-Mondragon et al.[81] / Mexico	Jaguars and other carnivores / Northeast Mexico	Documenting the economic impact of the jaguar on cattle ranching.	Eighty people were surveyed in 60 rural communities. Each questionnaire consisted of closed questions to obtain timely data on livestock damage due to carnivores present in the area.	Of those interviewed, 29.03% confirmed losses due to jaguars and 35% recognized the presence of jaguars in their communities. There were 247 events with losses of US$40,000. Cattle and goats suffered the most attacks.
	Rosas-Rosas et al.[82] / Mexico	Jaguars and pumas / Northeastern Sonora	Determine the impacts of jaguar and puma predation on livestock.	Annual calf survival rates during calving and cause-specific mortality rates were estimated. The number of individuals at risk was modeled. Feces were analyzed to look for traces of	Forty-five calf deaths by jaguar were confirmed. Most of the predation occurred during the dry season. Calves killed by jaguars ranged from 30 to 200 kg body weight.
	Tortato et al.[83] / Brazil	Jaguares and Pumas / Brazilian Pantanal	Determine what factors influence feline attacks on livestock.	Cattle herds were monitored weekly. Carcasses were located by the presence and behavior of scavenging birds. Predator preference of cattle by age group and the frequency of observed predation kills in young and adult individuals were compared.	Kills of jaguars and pumas were indistinguishable. Big cats caused more than half of the mortality in the herd (152/267). Cattle losses varied over the years, although they never exceeded 2.8% of the total herd. Adult cattle were attacked in greater proportion

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Livestock predation / Risk factors	Burgas et al.[84] / Costa Rica	Jaguars and pumas / Cordillera of Guanacaste of Costa Rica	Evaluate the relationship between the occurrence of attacks on livestock and the richness and abundance of potential natural prey species.	The study area was visited in order to locate farms, both attacked and unattacked. The farms were inspected and asked about the occurrence of big cat attacks on livestock on their farms or in the surrounding area.	Twenty-two farmers had evidence of recent attacks. A total of 156 animal tracks of 18 potential prey species were recorded. Attacks occur along with low species richness, as well as low relative prey abundance.
	Carvalho et al.[85] / Brazil	Jaguars / Transamazon Highway	Obtain predation records to model livestock predation risk.	Livestock owners were interviewed and predation sites were visited to record the date of the attack, the identity of the prey and predator, and the geographic coordinates of each record.	Predation risk increased with distance from deforestation and livestock density. Predation risk is high in disturbed areas and at the edge of deforested forests.
	Azevedo et al.[86] / Brazil	Jaguars and pumas / Southern Pantanal of Mato Grosso do Sul State	Examine livestock predation patterns to assess the drivers of prey mortality.	Jaguars and pumas were captured and radio collared. Predation and other mortality events were recorded. Daily visits were made to estimate the causes of livestock survival and mortality.	A total of 169 incidents of livestock mortality were recorded. Jaguars caused most of the livestock predation and preyed on all age classes. The probability of predation increased the shorter the distance to the forest.
	Rabinowitz et al.[87] / Belize	Jaguars / Humid subtropical forest	Research jaguar-livestock interaction and develop a management guide.	Telemetry, collaring and tracking of problem and nonproblem jaguars.	Five individuals were captured and followed, and translocation occurred. There was evidence of an attack on livestock and retaliatory killing. Translocation is not functional. Only wild prey were found in 185 feces.
	Zarco-Gonzalez et al.[88] / Mexico	Jaguars and pumas / Tropical and arid environments	Generate a livestock depredation risk model based on environmental and management variables.	Records of attacks on livestock were obtained. The variables used to characterize the attack sites were landscape, type of management, topographic variables, vegetation, cover, human density, among others.	A total of 152 jaguar and 70 puma attacks were recorded in 19 states. The percentage of cover and free-grazing animals, altitude and arid vegetation were related to the risk of predation.

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Table S2. Synthesis of results from sources of evidence focusing on jaguar-human interaction

Theme/ subtheme	Reference/ country	Population and environment	Objectives	Methodological description	Main findings
Attacks on humans	Iserson et al.[92] / Guyana	Not described	Describing the case of a girl attacked in South America	Not described	The victim was a three-year-old girl in a remote jungle area. She was attacked twice when she was in the Mazaruni River. The jaguar was shot and killed
	Neto et al.[93] / Brazil	Not described	Cases of patients attacked by jaguars in situations of provocation and predation	Not described	A 40-year-old man suffered a nonfatal attack while traveling to a reservation. A 17-year-old was assaulted while returning from a fishing trip and a 21-year-old was killed.
Poaching / Hunting Reports	Almazán-Catalán et al.[94] / Mexico	Jaguars and other cats / Guerrero	Present observations on the current habitat and distribution of six feline species	Twenty-four specimens from 21 locations were examined. Individuals who retained skins or skeletal remains were interviewed. Somatic and cranial measurements were obtained, sex, age, reproductive condition, and habitat of capture were recorded.	The skins of an adult male and female jaguar, which were hunted during the day, seven months apart in the forest, were examined. The female was lactating. These records increase the known locations of the jaguar.
	Balaguera-Reina et al.[95] / Colombia	Jaguars / Colombia	To publicize the hunting of a jaguar for subsistence purposes in a marginalized community.	The fact is described and detailed, site, location coordinates and characteristics of the population that is marginalized and presents strong social problems related to human rights.	First report of subsistence hunting of the jaguar for the Choco region, Colombia
	De Carvalho et al. [96] / Brazil	Jaguars and pumas / National protected areas of Brazil	Assess the scale of big cat hunting within national protected areas.	Federal protected area managers were asked about reserve management, human population and managers' awareness of the presence of jaguars and pumas in the reserve and hunting.	The presence of jaguars was confirmed in 49 reserves. At least 38 jaguars were hunted, mainly in retaliation for attacks on livestock, perceived risk to life, and hunting for sport.
	Jedrzejewski et al.[97] / Venezuela	Jaguars and people living in rural areas of Venezuela	Identify motives for killings. Compare hunting tools and methods to infer their efficiency and impact.	Hunters, ranchers and residents were interviewed. Jaguar mortality was classified into retaliatory killing and subsistence/ commercial hunting. Data from two periods were compared to assess temporal changes in prevalence, incidence or reasons for killing.	Jaguars provoked 387 attacks on livestock and 22 on humans. Subsistence/commercial hunting was common, but retaliatory killing was not. Hit-and-run, attacks on pets, fear and as hunting trophies were causes of killing.

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Poaching / Hunting intent	Engel et al.[98] / Brazil	People living in two rural areas	Measuring consensus on the acceptability of killing jaguars or pumas	Questionnaires were completed by rural residents and high school students. Responses were compared for felids and the acceptability of killing them.	In general, people did not agree with killing a big cat.
	Knox et al.[99] / Bolivia	Jaguars and residents of the northwestern Bolivian Amazon region	Investigate attitudes and norms related to jaguars, the killing of jaguars in two indigenous protected areas	A mixed questionnaire was used, administered through structured personal interviews in Santa Rosa, Tacana II and the Manuri National Amazon Wildlife Reserve. Semirandom stratified sampling was used to ensure maximum representation.	In Tacana II more people were found who experienced or knew someone who suffered an attack and recognized attacks in the past. Dislike of jaguars and their positive attitude toward the killing of the feline were expressed.
	Marchini et al.[100] / Brazil	Cattle ranchers and rural and urban residents of Amazonia and Pantanal	Examine the norm, perception, attitude and intention of ranchers for jaguar killing.	Perceptions of jaguar impact on livestock and human safety were recorded on a scale. Respondents' attitudes toward killing the next jaguar that appeared on their property were assessed.	The impact of jaguars on livestock is not the only predictor of intention to kill a jaguar. Fear, personal and social motivations also influence the kill, as well as the thrill of retaliatory hunting.
Perceptions of the jaguar / Perspectives and meaning	Altricher et al.[101] / Argentina	Jaguars / Semiarid Chaco	Assess the presence of the jaguar and people's perceptions and reactions to the species.	A total of 423 semistructured interviews were conducted. A correlation analysis was made between the age of the settlements and the time of the last sign of jaguar presence. Records of individuals and jaguar remains (skin, skulls) from 1920 to 2003.	The jaguar was considered dangerous, 96% never heard of attacks on livestock and one attack on humans was reported, attacks on livestock were rare, and puma attacks were common. Eighty percent of livestock deaths were associated with other causes.
	Amit et al.[102] / Costa Rica	Jaguars and pumas	Identify types of livestock owners and improve coexistence with big cats.	Randomized structured surveys were administered to 93 ranchers affected by jaguar and puma predation and 69 unaffected neighbors. The theory of planned behavior was used and a taxonomy was defined for the ranchers.	Six types of farmers were identified, ranging from preventive to those influenced by negative emotions toward felines. Emotions, perceptions and preventive behavior were higher in farmers who received support.
	Bredin et al.[103] / Brazil	People working near jaguars in the savannah and in the jungle	Study opinions on jaguars and their conservation in all biomes.	The statements in the questionnaires were selected to cover a wide range of possible justice issues related to jaguars and their conservation in Brazil.	There is a positive view of protected areas in Brazil and the jaguars' right to exist is accepted. Jaguars are important for tourism and reduce crop depredation.
	Dos Santos et al.[104] / Brazil	Jaguars / Different biomes in Brazil	Assess people's opinions about the jaguar based on their perceptions and ascribed values.	Areas with jaguar distribution and diverse socioeconomic conditions were selected in 5 types of biomes. Semistructured questionnaires were randomly administered to adolescents, adults and older adults. Perceptions and the value conferred to the jaguar were the variables analyzed in the open-ended questions.	People have different perceptions according to their context. In Pantanal and Caatinga, the jaguar is seen as a beautiful animal, although it is dangerous. In 85.5% of the study area, people believe that the jaguar should not disappear and that it has more religious than ecological value.

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	Garcia et al.[105] / Mexico	Jaguars and other mammals / Lacandon Jungle in Chiapas	Recognize the species of wild mammals most important to people in four communities.	Interviews were conducted to collect sociodemographic information and qualitative data on categories of cultural importance. The number of species mentioned by two local populations was compared, as well as the responses in qualitative categories	The jaguar was one of the most frequently mentioned species. The species was mentioned in three use categories: edible, medicinal and ornamental. It was also mentioned in nonutilitarian categories: narrative and noxious species.
	Harvey et al.[106] / Belize	Jaguars and felines / Savanna, tropical deciduous forests and private lands	Identify how gender, culture, and socioeconomic factors affect tolerance and intentions toward felines.	Structured interviews with 112 persons, statistics were applied to	Tolerance was associated with gender and participation in the camera-trap program, while intention to kill was associated with cultural group (Mennonites vs. mestizos), presence of children in the household, and tolerance. Women and Mennonites were less tolerant.
	Krafte et al.[107] / Global	*Panthera* spp. / Cold, dry and humid habitats	Assess knowledge about the human-Panthera conflict and possible solutions	A systematic review was performed, indexed bases were consulted from 1991 to 2014 in Web of Science and Google Scholar. Research sites and time, method, intervention evaluation and management recommendations were evaluated.	Compensation and livestock management strategies are more effective over the translocation or death of felines and environmental education and tourism programs. The sociocultural aspect must be integrated
	Olivera-Méndez et al.[108] / Mexico	Jaguars and pumas / Protected areas of San Luis Potosí and Hidalgo	Identify the factors that generate conflict due to the presence of big cats in two natural protected areas.	Two hundred surveys were administered in 14 communities in the municipalities to which the natural areas belong. The questions were based on eight conflict variables, evaluating the results through a descriptive analysis.	75.5% of respondents reported no conflicts. Fourteen percent reported depredation of pets or work animals, 12.6% reported depredation of livestock and only one person suffered loss of productivity. Fear of attacks was reported
	Soto-Shoender et al.[109] / Guatemala	Jaguars and pumas / Tropical lowlands of the Mayan biosphere reserve	To understand residents' and ranchers' perceptions of the jaguar.	A semistructured questionnaire was developed and only adult male heads of household or ranch owners or managers were surveyed. Negative perceptions were identified according to the importance of felines as perceived by people.	Twenty-five percent of households and 31% of ranchers reported carnivore attacks. Seventy-nine percent of villagers believed that jaguars posed a danger to people, in contrast to ranchers (38%). The majority stated that the jaguar is important for the forests.
	Steinberg et al.[110] / Belize	Jaguars / Southern Belize	Investigate attitudes toward jaguars, human-jaguar conflicts and jaguar conservation.	Indirect questions or methods were used to shed light on the perception of jaguars by Mayan villagers, whether or not jaguars are found near the villages, and the potential impact such attitudes could have on the conservation effort.	Among the Maya of southern Belize, predation of dogs, not livestock, generates conflicts with the feline. Sixty-four percent of informants described jaguars as 'bad' or in negative terms. Jaguar hunting is less common now.

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	Zamudio et al.[111] / Mexico	Jaguars / Nayarit	To analyze the perspective on the jaguar of the inhabitants of two communities located in areas for its conservation	Semistructured interviews were conducted with key stakeholders. Categories were defined to study the community's perspective on the jaguar: ethical, aesthetic and cultural dimensions.	Misinformation about the species, the communities' scale of values and the prevalence of consumer culture may hinder jaguar conservation in the region, although aesthetic inclination toward the feline may help
	Zimmermann et al.[90]/ Brasil	Jaguar / Pantanal, wetlands	Analyze ranchers' attitudes toward jaguars and conservation to identify ways to resolve the conflict	Fifty structured surveys were administered, including socioeconomic aspects, their experiences with the jaguar, predation and benefits. Descriptive statistics and bivariate analysis between attitudes and the variables explored were performed.	Conservation is supported by mixed attitudes toward jaguars in relation to age and economic status rather than benefits through tourism or the costs of livestock depredation. 82% suffered predation and jaguars are considered a threat to livestock and humans.
Perceptions about jaguars / Retaliation for predation	Conforti et al.[112] / Brazil	People living near the Iguazú National Park	Evaluate the perception of jaguars and pumas and solutions to resolve attacks on livestock.	Personal interviews were conducted to solicit information on perceptions of jaguars, pumas and the reserve, as well as general aspects of the problem of livestock depredation.	Perceptions varied by species: fewer people feared the puma and most believed that jaguars were released by the authorities. Predation history did not influence perceptions.
	Marchini et al.[113] / Brazil	People living in the Amazon and Pantanal near jaguars	Assess the perception of jaguar impact on livestock and human safety according to the attitude toward the feline.	Perceptions of jaguar impact on human livelihoods were assessed using questions designed to evaluate beliefs about past damage, vulnerability, and perceptions of risk of future damage at different geographic scales.	Pantanal ranchers perceived a greater impact of jaguars on their livestock. On small farms, more depredation was perceived on neighboring property than on their own. The experiences of neighbors have an influence
	Palmeira et al.[114] / Brazil	Jaguars and pumas / Dense forest	To know local opinion to resolve predation conflicts.	Interviews were conducted, economic losses were estimated as a function of livestock biomass in dollars.	The attitude of the people was negative; the majority preferred to kill them; they correspond to poor communities. Predation of domestic animals was high, especially pigs and horses.
	Rosas-Rosas et al.[115] / Mexico	Jaguars / Northeastern Sonora	Not specified	Meetings, workshops and presentations were conducted to develop a relationship with and among landowners and to reach consensus on a management strategy to eliminate large carnivore control. The status of the deer population was determined.	Landowner involvement in jaguar conservation in northeastern Sonora is a successful private wildlife conservation initiative that provides an example for jaguar conservation efforts.

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Impact of human activities / Response to human activities	Bisbal et al.[116] / Venezuela	Jaguars and other carnivorous species in Venezuelan biogeographic zones	Examine possible responses of carnivores to human activities.	The study is based on two previous investigations: the first analyzes the human impact on Venezuelan habitats and the second the distribution and habitat associated with carnivores in Venezuela.	Deforestation, road and dam construction, mining and timber exploitation have affected jaguar populations, which are hunted as trophies for attacks on livestock.
	Boron et al.[117] / Colombia	Jaguars and other animals in the central region of the Magdalena river valley	Exploring the effects of agricultural expansion on mammals.	Camera stations were installed at Site-1 and Site-2. For each study site, species accumulation curves were produced using EstimateS	The wetlands increased jaguar occupancy. Jaguars were present in both areas, although with an impoverished prey community as armadillos, pacas, peccaries, capybaras and deer were absent or scarce.
	Espinosa et al.[118] / Ecuador	Jaguars and prey species in the Yasuní biosphere reserve	Analyze the consequences of accessibility to a wilderness area for jaguar populations and their prey.	Camera trap stations were placed at four study sites. The probability of prey occurrence and detection was estimated with single-season site occupancy models. Jaguar density was estimated with a capture-recapture model.	Density estimates were based on a total of 30 adult jaguars. Density decreased according to accessibility to the areas: 5.44 and 0.29 individuals/100 m2 in the least and most accessible sites, respectively.
	Jedrzejewski et al.[119] / Venezuela	Jaguars, hunters, ranchers and residents of Venezuela	Explain the factors influencing local extinctions that modify the spatial distribution of the jaguar.	Anthropogenic and environmental variables were modeled to test whether human impacts or ecosystem productivity explain the observed spatial variation in jaguar occurrence probability.	Human population density and habitat alterations had negative effects on jaguar populations, while environmental variables such as temperature, precipitation, forest cover and were positive.
Impact of human activities / Habitat use	Boron et al.[120] / Colombia	Jaguars / Crop areas	Estimate the density of jaguar in cultivated areas.	During 2014, phototrapping was done with spatially explicit and capture/recapture models.	If natural areas and riparian habitats persist and hunting of both jaguars and prey is limited. Cats may live in unprotected areas and coexist with agricultural landscapes, including oil palm plantations.
	De Angelo et al.[121] / Argentina	Jaguars and pumas / Atlantic forest of the upper Paraná.	To compare the response of jaguars and pumas to human impacts on a regional scale in a highly modified region.	Puma and jaguar occurrence data were used in an ecological niche analysis. Records were sampled to characterize and compare their habitat requirements, habitat suitability was mapped, and differences in niche parameters according to landscape characteristics were examined.	Felines showed high dependence on native forests and habitat protection and low tolerance to anthropogenization. Jaguars showed greater differences between optimal habitat and available landscape and lower tolerance to disturbance.

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	De Angelo et al.[122] / Argentina, Brazil, and Paraguay	Jaguars / Upper Paraná Atlantic Forest	Examine factors influencing jaguar habitat suitability. Map suitable habitat and identify areas of conflict.	Records of jaguar presence and pseudoabsences were used. The hypotheses were structured in two groups that demanded different management actions: ground cover and human persecution. The best model was used to develop a two-dimensional habitat model.	Protection favored jaguar presence, while human accessibility and high population density had a negative effect. Occurrence was related to the amount of forest, proximity to forested areas. Land use affected jaguar presence.
	Foster et al.[123] / Belize	Jaguars and pumas / Cresta de Gallo Wildlife Sanctuary Watershed	Compare habitat use between species in a protected and conserved forest and an anthropized landscape. Evaluate the tolerance of jaguars and pumas to ecotourism.	A total of 178 sampling stations were established. Nocturnal captures were analyzed, excreta were collected to identify genotypes and verify presence. Species activity was analyzed in relation to trail width, distance to water and distance to human settlement. Feline presence rates were analyzed in relation to human presence.	Habitat use by male and female jaguars differed; the former were more abundant in protected areas. Road use and jaguar activity declined in ecotourism peaks. The jaguar was recorded throughout the anthropized landscape, which explains the differential tolerance to disturbance and limited
	Jorge et al.[124] / Argentina, Brazil, and Paraguay	Jaguars and other mammals / Atlantic Forest	Test whether native forest areas still harbor ecological processes to ensure ecosystem maintenance.	Information on occurrence records was compiled using recent reviews, national action plans, references, and gray literature over the past 12 years within the Atlantic Forest biome. For each occurrence record, information was collected on patch size and coordinates.	The species most sensitive to patch size is the jaguar, for which all 21 records are found in patches larger than 10,000 ha and almost half in patches larger than 100,000 ha. Its current area of occupancy is approximately 1.15 million ha.
	Morato et al.[125] / Argentina and Brazil	Jaguars/Brazil and Argentina	Identify resource use at the spatial level and examine how resource selection differs according to gender and individuals.	Adult jaguars were captured and fitted with GPS satellite collars. The extent of individual home range was estimated using the autocorrelated grain density estimator. To delineate the foraging scale, the mean individual distance traveled per day was estimated.	Forest cover was associated with use. Jaguars use areas closer to rivers. Jaguars in densely forested areas avoid nonforested areas more than individuals in more open landscapes. Areas with more livestock attract more male jaguars.
	Paviolo et al.[126] / Argentina	Jaguars and pumas / Province of Misiones in the Atlantic Forest of Argentina	Evaluate jaguar and puma habitat use in a productive landscape of exotic pine plantations and forested areas.	Data from two large-scale camera trap surveys were pooled. To assess prey availability, an index was generated based on prey occupancy and its contribution to biomass consumption by felids. Habitat use patterns of felids and their prey were analyzed with single-season occupancy models.	Jaguars and pumas used areas of high human accessibility less frequently. Dam occupancy was affected by pine plantations, distance to the forest and human accessibility. Tree plantations in forested areas do not constitute barriers and function as corridors.

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	Thompson et al.[127] / Argentina, Bolivia, and Paraguay	Jaguars and their prey / Yungas and Chaco Seco Ecoregions	Determine corridor use and suitability for jaguars and prey base in areas adjacent to conservation areas	Se realizaron entrevistas a los residentes. Utilizando un marco de modelos de ocupación de comunidades de múltiples especies, se examinó la presencia de especies en relación con la cobertura forestal y los factores antropogénicos	Species were associated with forest cover, fewer dwellings, and increased distance from roads and settlements. Anthropogenic factors were negatively correlated with jaguar presence, which was lower than expected.
	Zemanova et al.[128] / Bolivia	Jaguars / Dry forests	Assess landscape connectivity as a result of fragmentation, using scales of species distribution and human activity.	A landscape approach was used to capture spatial and temporal changes. Within the jaguar conservation units, sites were selected based on the degree of deforestation and socioeconomic status. Connectivity, mean patch size and patch density were assessed.	The amount of natural vegetation was found to decrease >40%. Patch density increased with a reduction in mean patch area. Even when jaguars use diverse habitats, fragmentation and degradation jeopardize the connectivity and permanence of populations.
Impact of human activities / Habitat loss and fragmentation	Benchimol et al.[129] / Brazil	Animals inside the Balbina hydroelectric reservoir	To evaluate the response of vertebrate species to the insularization process induced by a prey.	Four sampling techniques were used to determine the occupancy of medium to large vertebrate fauna: camera trapping, line transect surveys, signal surveys, and armadillo burrow counts.	The results showed that jaguars are excellent swimmers and regularly cross islands. Large islands that are not very isolated are more likely to be used and do not occur on medium-sized islands.
	Cullen et al.[130] / Brazil	Jaguars in the Paraná River, in the Brazilian Atlantic forest region	Analyze factors affecting the viability of a top predator in a fragmented landscape.	A habitat model was developed using data on land cover and habitat selection of jaguars. The model was used to calculate the spatial structure of the metapopulation and to simulate jaguar dynamics and viability under various scenarios.	Jaguars exist in eight populations with different sizes and subject to varying degrees of human disturbance. Road mortality could affect jaguar populations, limiting their abundance and distribution.
	Garmendia et al.[131] / Mexico	Jaguars and terrestrial mammals / Lacandon Jungle	Identify the spatial attributes with the greatest influence on the number and occurrence of species.	The effects of forest cover, number of patches, edge density, mean patch isolation distance and matrix quality; and three patch metrics: patch size, shape and isolation, on the number of species and patch occupancy were evaluated.	The jaguar was recorded exclusively within the contiguous forest in two of the four monitoring sites. The species was sensitive to habitat loss.
	Mora et al.[132] / Mexico	Apex predators, mammals in Mexico	Evaluate landscape features that indicate ecological integrity and their potential as spatial indicators.	Spatial indicators were obtained using the concept of ecological integrity, which characterizes the landscape based on manifest and latent variables of naturalness, stability and self-organization, according to measures of spatial distribution of species and habitat.	Jaguars are more threatened by natural habitat transformation. Jaguars and other animals showed values of habitat transformed greater than the amount of habitat with high ecological integrity.

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	Olsoy et al.[133] / Latin America	Jaguars in core areas and corridors in Latin America	Reviewing recent deforestation and fragmentation	Deforestation was estimated in core areas and jaguar corridors using global forest change maps. Binary layers of forest cover were generated at the pixel level to analyze forest change and fragmentation.	Deforestation was greater in the corridors than in the central areas. The greatest deforestation occurred in South America.
	Osipova et al.[134] / Bolivia	Jaguars and two other umbrella species in Bolivia	Estimate potential species habitat losses caused by climate change and cover scenarios.	A species distribution model was used to predict species habitat ranges for past (2000) and future (2050) climate and land cover conditions. Presence data were used for all of South America.	High jaguar dependence on precipitation was modeled. Jaguars experienced 55-70% habitat decline under full and no dispersal scenarios. 70-83% of distribution will be lost under climate change scenarios.
	Romero-Muñoz et al.[135] / Argentina, Bolivia, and Paraguay	Jaguars / El Gran Chaco	Evaluate how habitat loss and overhunting interacted to affect jaguar habitat between 1985 and 2013.	Habitat was modeled as a function of resource availability and hunting threats, allowing for the separation of core (high resource availability and low hunting threat), refuge (low resource but safe), attractive sink (high resource but risky) and sink (low resource and risky habitat).	Jaguar core areas were reduced by 33% due to hunting threats. Sinkholes covered 58% of the jaguar's range in 2013 and these sites accounted for the majority of kills. Hunting threats affected protected areas.
	Srbek-Araujo et al.[136] / Brazil	Jaguars /Bosque atlántico en Brasil	Reports jaguar hit on one of the longest roads in the area	Monitoring of the jaguar population began in 2005, and nine individuals have been identified in this reserve by camera traps.	In August 2000, a female jaguar was found dead after being run over. These sporadic events have negative effects on the population. Interruption of the flow between reserves would cause loss of diversity.
	Villordo-Galvan et al.[137] / Mexico	Jaguarss / Bosque tropical lluvioso, templado y seco	Confirm and assess jaguar and prey presence, identify threat factors, estimate lost habitat	Photo-trapping, interviews in 42 communities, evidence of jaguar signs was recorded and maps were designed.	Thirty-four records and signs of jaguar and its prey were obtained. The jaguar was associated with conserved vegetation (oak and dry tropical forest) and on the edges of sugarcane crops. No jaguar photos were obtained, but there were photos of prey and other felines.
	Zanin et al.[138]/ The Americas	Jaguars	Investigate the synergistic and isolated effect of habitat loss and fragmentation. Evaluate the effect of landscape pattern on the persistence of habitat loss and fragmentation.	Twenty-eight studies were selected for the research corresponding to areas located in nine countries, with density estimates ranging from 1.12 to 11.56 jaguars/100 km2. Land use was defined across all landscapes and converted into a binary map to approximate a jaguar's perception of the landscape. Population dynamics were simulated and persistence was estimated.	Jaguar persistence was related to the amount and subdivision of the landscape, showing a strong tolerance to habitat loss. Persistence of smaller populations decreased in fragmented landscapes, indicating that fragmentation is a greater threat than habitat loss.